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924

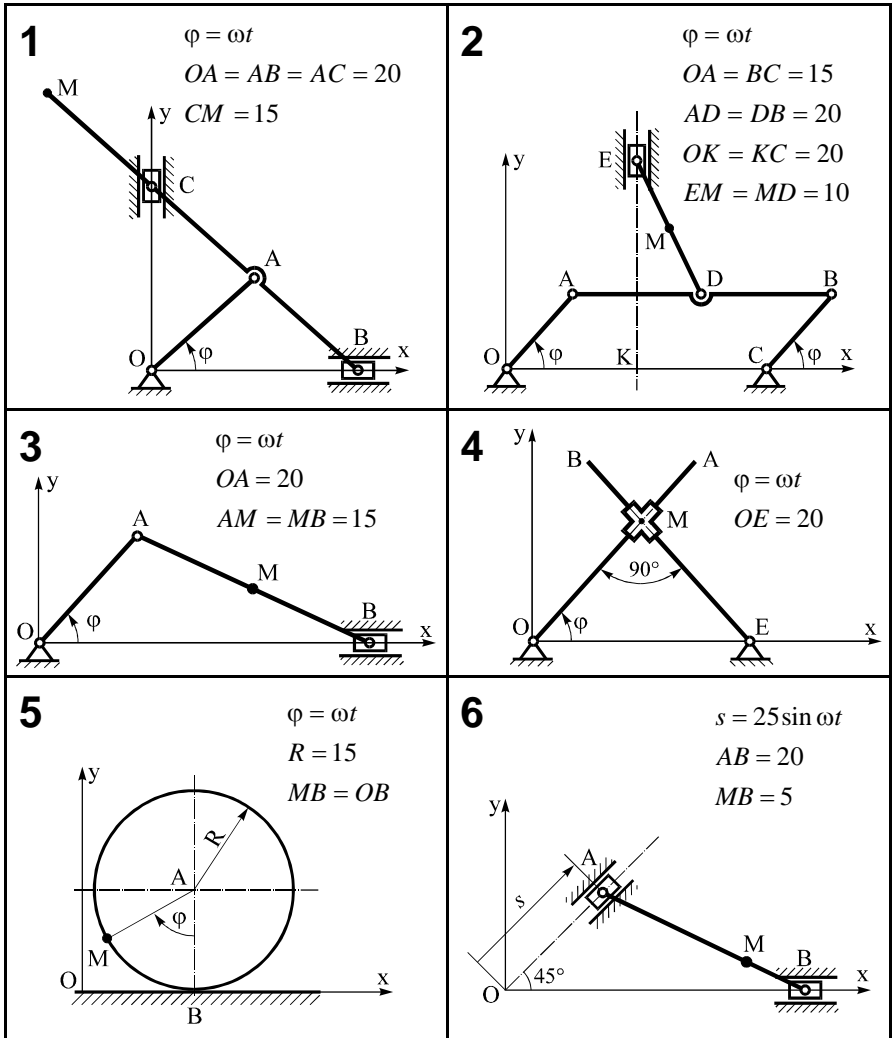
924

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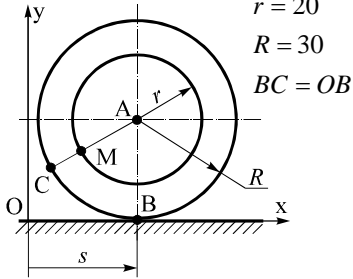
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1.	5
2.	10
3.	12
4.	13
5.	16
6.,	20
7.	24
8.	28
9.	32
10.	37
11.	42
12.	47
13.	52
14.,	57
15.	62
16.	67
	72

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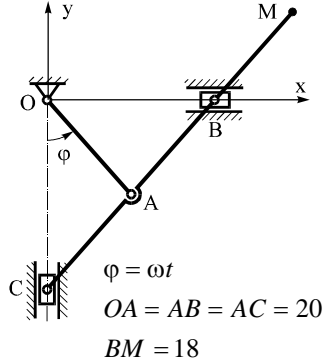
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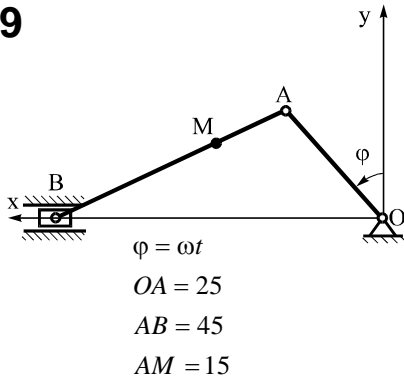
7



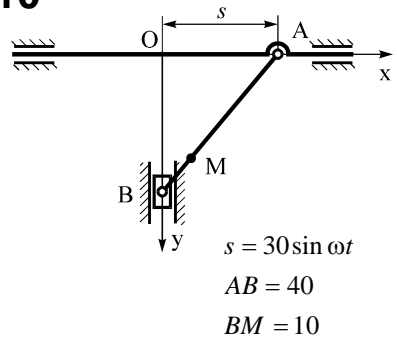
8



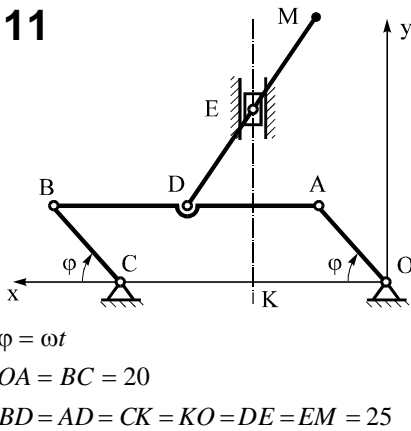
9



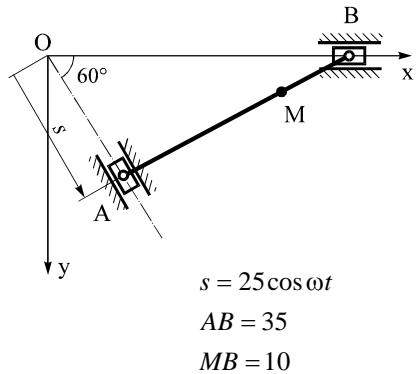
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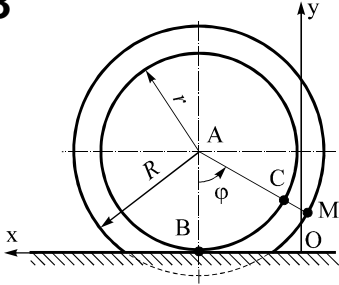
11



12

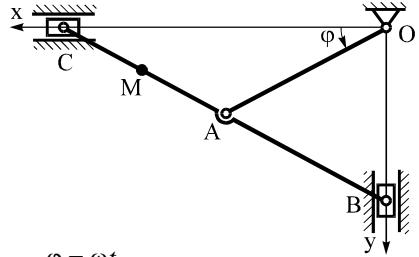


13



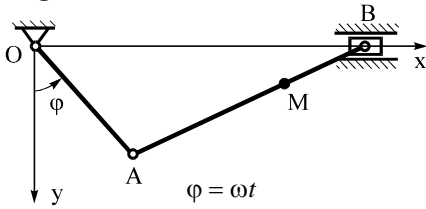
$r = 40$; $R = 50$
 $\varphi = \omega t$; $BC = OB$

14



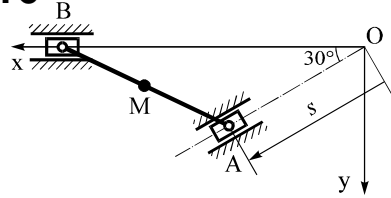
$\varphi = \omega t$
 $OA = AB = AC = 30$
 $AM = 15$

15



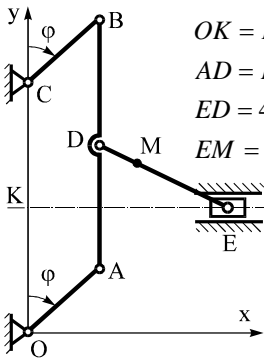
$\varphi = \omega t$
 $OA = 15$
 $AB = 25$
 $BM = 10$

16



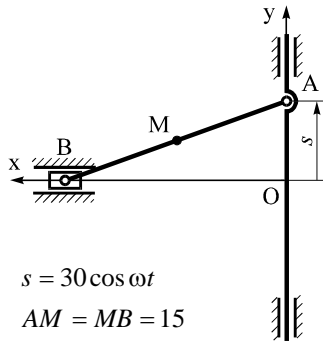
$s = 40 \sin \omega t$
 $AM = MB = 15$

17



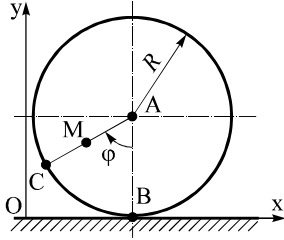
$\varphi = \omega t$;
 $BC = AO = 30$
 $OK = KC = 40$
 $AD = DB = 40$
 $ED = 45$
 $EM = 35$

18



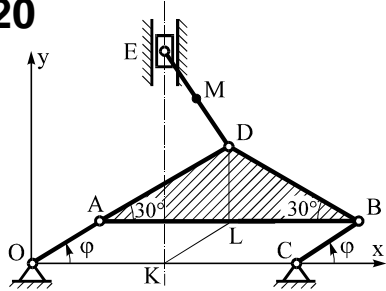
$s = 30 \cos \omega t$
 $AM = MB = 15$

19



$$\begin{aligned} \varphi &= \omega t \\ R &= 20 \\ AM &= 10 \\ OB &= CB \end{aligned}$$

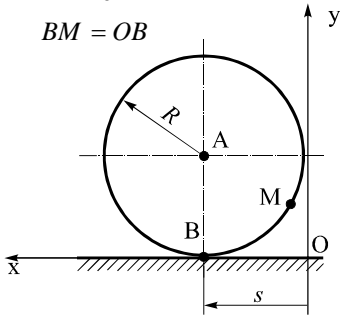
20



$$\begin{aligned} \varphi &= \omega t \\ OA = BC = KL = 10 & \quad ; \quad EM = MD = 8 \\ AL = LB = OK = KC &= 10\sqrt{3} \end{aligned}$$

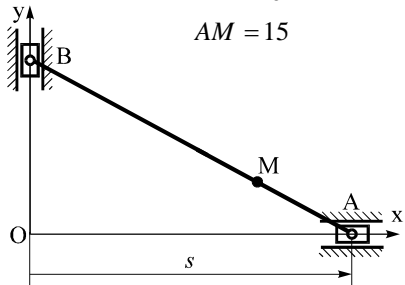
21

$$\begin{aligned} s &= 15t \\ R &= 20 \\ BM &= OB \end{aligned}$$



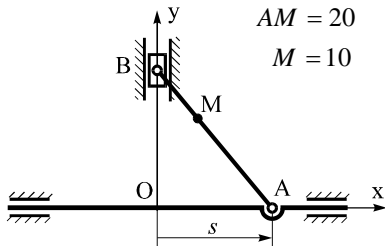
22

$$\begin{aligned} s &= 30 \sin \omega t \\ AB &= 40 \\ AM &= 15 \end{aligned}$$



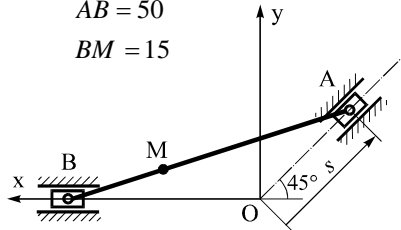
23

$$\begin{aligned} s &= 20 \cos \omega t \\ AM &= 20 \\ M &= 10 \end{aligned}$$



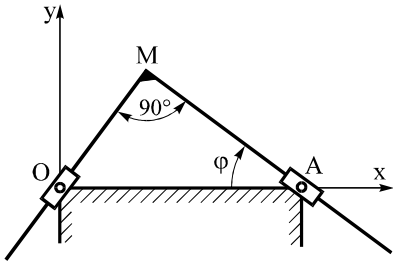
24

$$\begin{aligned} s &= 25 \sin \omega t \\ AB &= 50 \\ BM &= 15 \end{aligned}$$

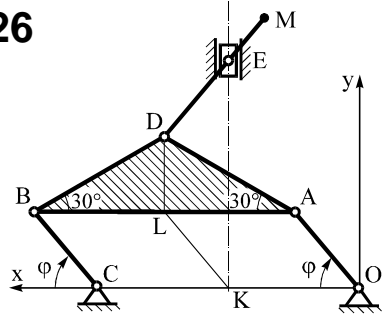


25

$\varphi = \omega t$
 $OA = 30$

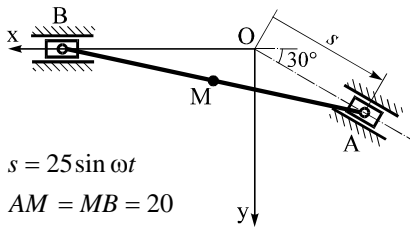


26



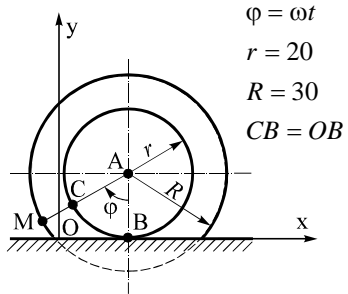
$\varphi = \omega t$
 $BC = LK = OA = DE = 30$
 $AL = LB = OK = KC = 20\sqrt{3}$
 $EM = 15$

27



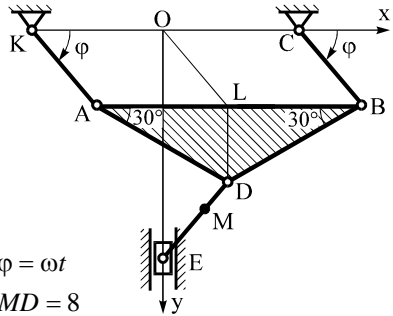
$s = 25 \sin \omega t$
 $AM = MB = 20$

28



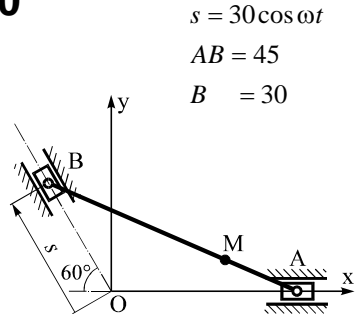
$\varphi = \omega t$
 $r = 20$
 $R = 30$
 $CB = OB$

29



$\varphi = \omega t$
 $MD = 8$
 $AK = BC = OL = ED = 20$
 $OK = OC = AL = LB = 25$

30



$s = 30 \cos \omega t$
 $AB = 45$
 $BM = 30$

2

$y = y(t)$ ($x, y -$; $t -$) $x = x(t)$
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1	$x = 7 \sin \frac{\pi t}{3} + 2$ $y = 7 \cos \frac{\pi t}{3} - 4$	1	8	$x = 2t^3 + 4$ $y = 3 - t^3$	1
2	$x = -3t^2 + 2$ $y = 5t$	1	9	$x = 3 \sin^2 \frac{\pi t}{6}$ $y = 5 \cos^2 \frac{\pi t}{6} - 1$	1
3	$x = 3 - \sin 3t$ $y = 2 \sin 3t - 4$	$\frac{\pi}{9}$	10	$x = 4 \cos \pi t - 1$ $y = 4 \sin \pi t + 2$	$\frac{1}{4}$
4	$x = t^3 + 4$ $y = 2t^3 + 2$	1	11	$x = 2 \cos \frac{\pi t}{4} - 4$ $y = 4 \sin \frac{\pi t}{4} - 2$	1
5	$x = t^4 - 3$ $y = 2t^2 + 4$	1	12	$x = \cos 4t - 2$ $y = 3 \cos 4t + 1$	$\frac{\pi}{16}$
6	$x = 5 \sin \frac{\pi t}{6} + 3$ $y = 3 \cos \frac{\pi t}{6} - 2$	1	13	$x = e^{2t} - 1$ $y = 2e^t + 4$	0
7	$x = 7t^2 - 3$ $y = 5t$	1	14	$x = 6 \cos \frac{\pi t^2}{3} - 1$ $y = 6 \sin \frac{\pi t^2}{3} + 2$	1

15	$x = 4e^{-3t} + 1$ $y = e^{-3t} + 3$	0	23	$x = 5t$ $y = 7t^2 + 6$	1
16	$x = 2\cos^2 \frac{\pi t}{3} - 1$ $y = 2\sin^2 \frac{\pi t}{3} + 2$	1	24	$x = 2e^t$ $y = 4e^{2t} + 5$	0
17	$x = 6\sin \frac{\pi t}{6} - 4$ $y = 3\cos \frac{\pi t}{6} + 2$	1	25	$x = 3e^{2t} - 5$ $y = 4 - 3e^{2t}$	0
18	$x = 7\sin \pi t - 2$ $y = 7\cos \pi t + 3$	$\frac{1}{4}$	26	$x = 2\cos \frac{\pi t^2}{6}$ $y = 3\sin \frac{\pi t^2}{6}$	1
19	$x = \sin^2 \frac{\pi t}{4} - 1$ $y = \cos^2 \frac{\pi t}{4} + 1$	1	27	$x = 2e^{-2t} - 1$ $y = e^{-2t} + 4$	0
20	$x = 2t^2 + 4$ $y = 3t$	1	28	$x = \cos^2 \frac{\pi t}{6} - 4$ $y = \sin^2 \frac{\pi t}{6} + 3$	2
21	$x = 2 - \sin \frac{\pi t^2}{6}$ $y = 3\cos \frac{\pi t^2}{6} + 1$	1	29	$x = e^{-t} + 6$ $y = 6e^{-t} + 4$	0
22	$x = 2e^{-3t} + 2$ $y = 3e^{-3t} + 3$	0	30	$x = 4t^2 + 1$ $y = -3t$	1

3

$x = x(t), y = y(t)$ (x, y — , t —)

1	$x = 5 - \sin^2 t$ $y = 6 \cos 2t$	11	$x = e^t \sin t$ $y = e^t \cos t$	21	$x = 3t^2 + 4$ $y = 2t - 1$
2	$x = 4 \cos^2 t$ $y = 2 \sin^2 t$	12	$x = 2t - \sin 2t$ $y = \cos 2t$	22	$x = t$ $y = \ln(\sin t)$
3	$x = 6 \sin^2 t$ $y = 3 \sin 2t$	13	$x = 2 \sin 4t - 6$ $y = 7 - 2 \cos 4t$	23	$x = t \ln t - t$ $y = 3t \ln t^2 - 6t$
4	$x = 2 \sin t^2 - 4$ $y = 4 - 2 \cos t^2$	14	$x = 3 \cos 2t - 6$ $y = 3 \sin 2t - 2$	24	$x = t^3 + 4$ $y = 4 - 2t^2$
5	$x = 2e^{-5t} - 4$ $y = 4e^{-5t} + 1$	15	$x = 4t$ $y = e^{2t} + e^{-2t}$	25	$x = 12 \sin^2 t - 5$ $y = 5 \sin^2 t + 12$
6	$x = 3 \sin^2 2t$ $y = 4 \cos^2 2t$	16	$x = 2t^2 - 3t$ $y = 3t^2 + 1$	26	$x = t^2 + 3$ $y = 2t^2 + 1$
7	$x = 8 - 5 \cos^2 t$ $y = 12 \sin^2 t - 12$	17	$x = \ln(\cos t)$ $y = t$	27	$x = e^t + e^{-t}$ $y = 2t$
8	$x = \ln(3t^2)$ $y = t$	18	$x = 3 \sin t^2$ $y = 3 \cos t^2$	28	$x = 2,5 \cos 2t$ $y = 1,5 \cos 2t$
9	$x = 4 \cos^2 2t - 4$ $y = 3 \cos^2 2t - 3$	19	$x = e^{4t} + 9$ $y = 4 - e^{4t}$	29	$x = \sin^2 t + \cos 2t$ $y = \frac{1}{2} \sin 2t$
10	$x = 3t + 5$ $y = 2t^2 - 4$	20	$x = 2te^t$ $y = 3te^t$	30	$x = 2 \sin t \cos t$ $y = \cos^2 t$

4

<p>1. , $H = 45$, - , - $h = 21$, - , - v_0 , - , - $g = 9,8 \text{ / } ^2$.</p>	<p>2. , , - 1200 , - - , $0,2 \text{ / } c^2$, $0,3 \text{ / } ^2$. -</p> <p>80 / ?</p>
<p>3. - - , - ?</p>	<p>4. - $1/3$. , . - $g = 9,8 \text{ / } ^2$.</p>
<p>5. , , , ?</p>	<p>6. , , 25 ? - $g = 9,8 \text{ / } ^2$.</p>
<p>7. , , - , - , 25- 28- ?</p>	<p>8. - h. - $H (H > h)$ - . v_0 - g.</p>
<p>9. $90 \text{ / } .$, $3 \text{ / } ^2$.</p>	<p>10. 30 $0,5$. $g = 9,8 \text{ / } ^2$.</p>

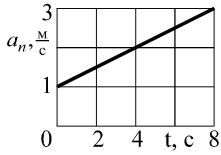
<p>11. , - , , - , , . - , , - 60 / ? - , - , - - 12g - ($g = 9,8 \text{ / } ^2$).</p>	<p>12. - 10 , 30 - 2 . - , - (— , 0,5144 /). - ,</p>
<p>13. - $v_0 = 19,6 \text{ /}$ $t = 0,5 \text{ .}$ - . - $g = 9,8 \text{ / } ^2$.</p>	<p>14. - 100 . - , ? - , - ? - $g = 9,8 \text{ / } ^2$.</p>
<p>15. - $r = 200$ - 1 / 2. - $t = 20 \text{ .}$ -</p>	<p>16. - 0,2 / 2. , - 4 10 . -</p>
<p>17. - 2 / 2. 5 - . - ? - $g = 9,8 \text{ / } ^2$.</p>	<p>18. - R - t . - . -</p>
<p>19. - 2 / 2 - . - $t = 2 \text{ ,}$ - $\rho = 4 \text{ .}$ -</p>	<p>20. , - , - 10 . - . - ?</p>

<p>21.</p> <p>1,5 /² 0,75 /²</p> <p>:</p> <p>?</p>	<p>22.</p> <p>0,5</p> <p>2</p> <p>5 /</p>
<p>23.</p> <p>100</p> <p>72 /</p> <p>10</p> <p>1 /² (</p> <p>).</p>	<p>24.</p> <p>$v_0 = 50$ /</p> <p>$v = 65$ /</p> <p>$r = 40$?</p>
<p>25.</p> <p>180 /</p> <p>1000</p>	<p>26.</p> <p>$r = 200$,</p> <p>2 /².</p> <p>5</p>
<p>27.</p> <p>(</p> <p>$l = 100$</p> <p>10 / : —</p> <p>—</p> <p>?</p> <p>$g = 9,8$ /².</p>	<p>28.</p> <p>$h = 1000$</p> <p>5</p> <p>$H = 1500$</p> <p>v_0</p> <p>v_0</p> <p>?</p> <p>$g = 9,8$ /².</p>
<p>29.</p> <p>3,5 /</p>	<p>30.</p> <p>400 /</p> <p>36</p> <p>?</p> <p>?</p> <p>99 %</p> <p>?</p>

5

<p>1.</p> <p>$\omega = 2 + 2t^2$ /с.</p> <p>$\varphi = 2\pi$.</p>	<p>2.</p> <p>$\omega = 4t^2 - 2t$ / .</p>
<p>3.</p> <p>$\omega = 32 - 2t^2$ / .</p>	<p>4.</p> <p>$s = 3t + t^3$.</p>
<p>5.</p> <p>$v = 2t^2$ / .</p>	<p>6.</p> <p>$r = 2$</p> <p>$\varphi = kt^3$.</p> <p>$v = 48$ / .</p>
<p>7.</p> <p>$v = 10t^2$ / .</p> <p>?</p>	<p>8.</p> <p>$\varphi = \pi t^3$.</p> <p>2 ,</p>
<p>9.</p> <p>$\varepsilon = 5t^2$ / 2.</p> <p>$\varphi = 10\pi$,</p> <p>$\omega_0 = 0$.</p>	<p>10.</p> <p>$\varphi = \pi \sin 2t$.</p>

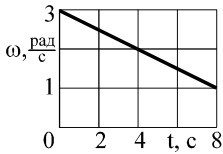
<p>11.</p> <p>$v = 9t^2$</p> <p>8</p>	<p>12.</p> <p>$\varphi = 10 + 5t - t^3$</p> <p>$r = 0,1$</p> <p>0,2</p>
<p>13.</p> <p>$\omega = \pi(6t - t^2)$</p>	<p>14.</p> <p>$\omega = 10 - 5t^3$</p> <p>$r = 1$</p> <p>$t_1 = 2$</p> <p>$\varphi_0 = 0$</p>
<p>15.</p> <p>$\varphi = 2 \sin \frac{\pi t^2}{3}$</p> <p>$r = 1$</p> <p>$t_1 = 2$</p>	<p>16.</p> <p>$\varepsilon = 4t$</p> <p>$t_1 = 1$</p> <p>ω_1</p> <p>$\omega_0 = 4$</p>
<p>17.</p> <p>$\omega = 2\pi t^2$</p> <p>$\varphi = 18\pi$</p>	<p>18.</p> <p>5</p> <p>$a_\tau = 2\pi t$</p> <p>5</p>



19.

$$r = 0,2$$

$$t_1 = 2 \text{ c.}$$



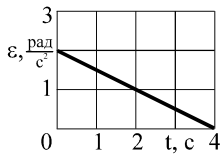
20.

$$r = 2$$

$$t_1 = 3 \text{ c,}$$

$$\varphi = \varphi(t),$$

$$\varphi_0 = 0.$$

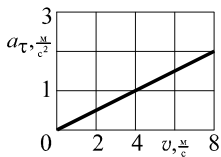


21.

$$r = 0,3$$

$$t_1 = 3 \text{ c,}$$

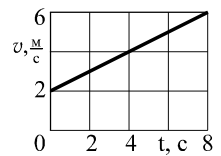
$$\varphi = \varphi(t), \quad \varphi_0 = 0 \quad \omega_0 = 0.$$



22.

$$r = 0,3$$

$$v_0 = 2 \text{ / .}$$

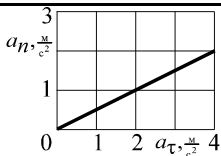


23.

$$r = 0,1$$

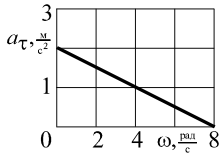
$$t_1 = 4 \text{ c,}$$

$$\varphi = \varphi(t), \quad \varphi_0 = 0.$$



24.

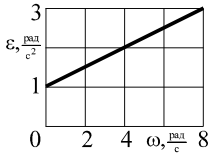
$$\omega_0 = 4 \text{ / .}$$



25.

$$r = 0,2$$

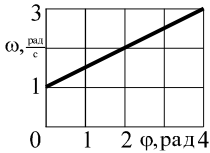
$$\omega_0 = 10 \text{ / .}$$



26.

$$r = 1$$

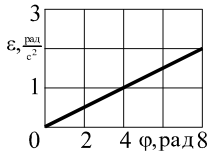
$$t_1 = 1 \text{ c, } \omega_0 = 0.$$



27.

$$\omega = \omega(\varphi),$$

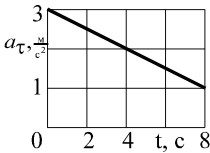
$$\varphi = \varphi(t), \quad \varphi_0 = 0.$$



28.

$$\varepsilon = \varepsilon(\varphi),$$

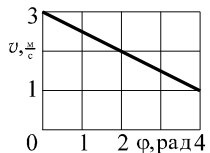
$$\varphi = \varphi(t), \quad \varphi_0 = 0 \quad \omega_0 = 1 \text{ / .}$$



29.

$$r = 0,2$$

$$t_1 = 1 \text{ c, } \varphi = \varphi(t), \quad \varphi_0 = 0 \quad \omega_0 = 0.$$



30.

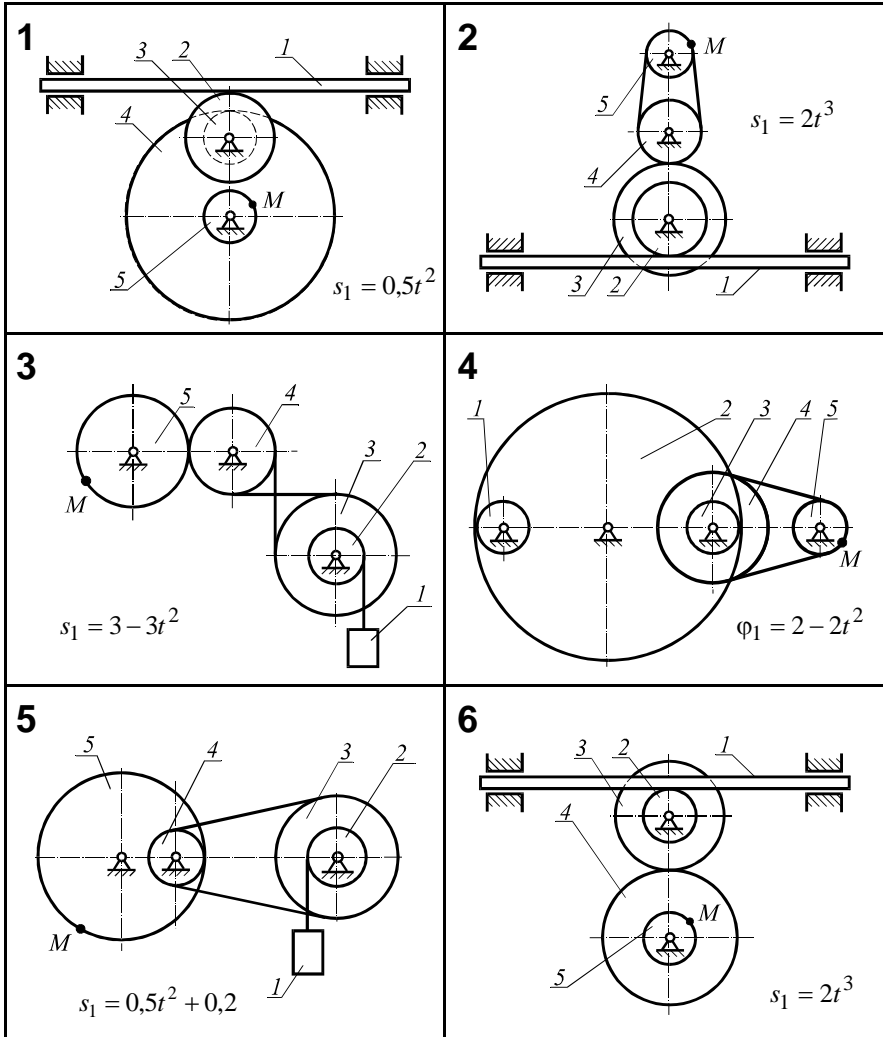
$$r = 0,2$$

$$\varphi = \varphi(t), \quad \varphi_0 = 10 \text{ .}$$

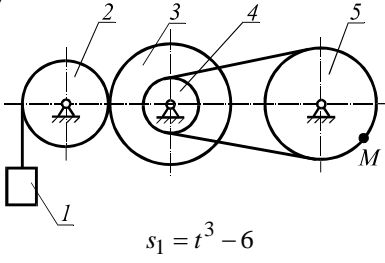
6

1

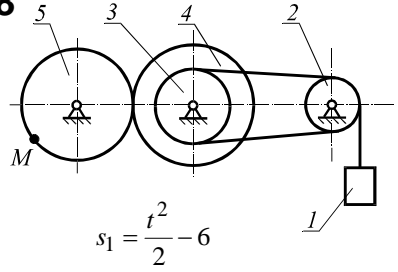
5,



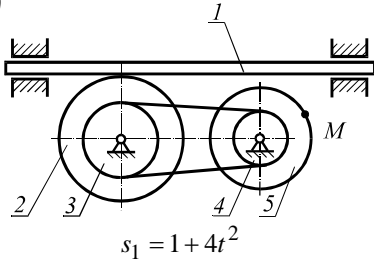
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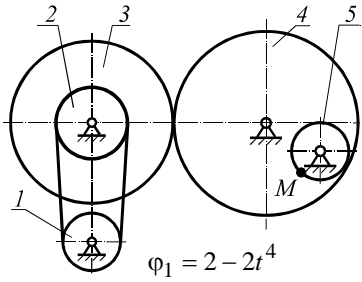
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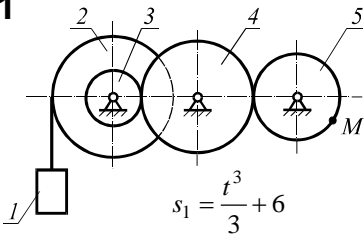
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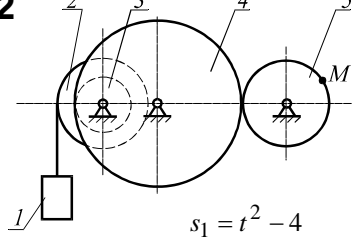
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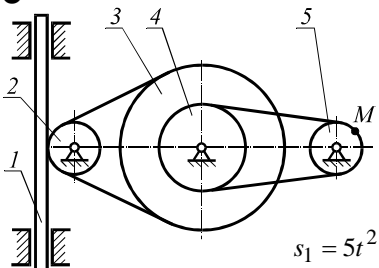
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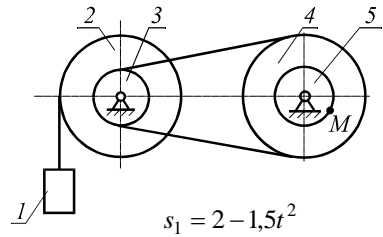
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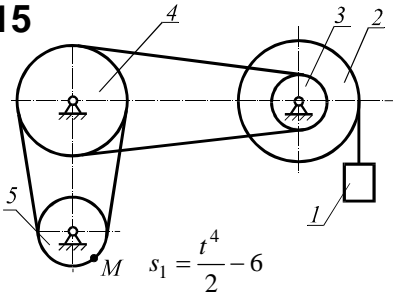
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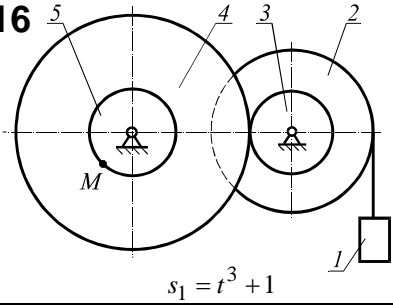
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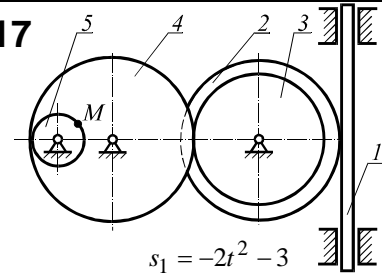
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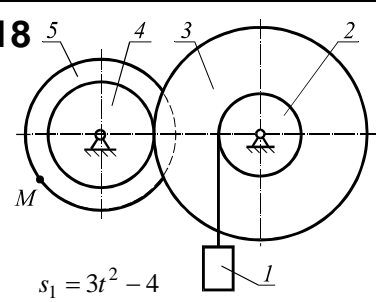
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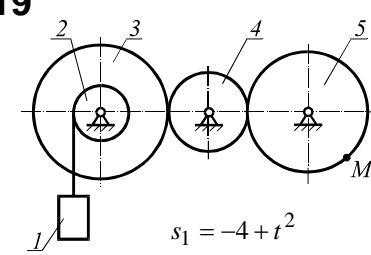
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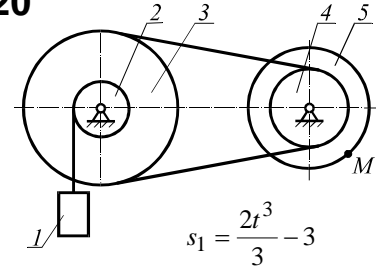
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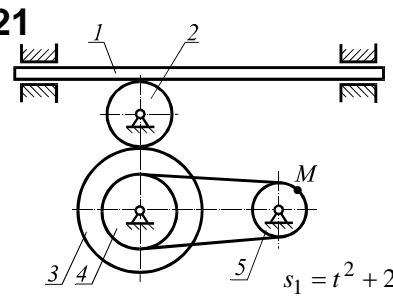
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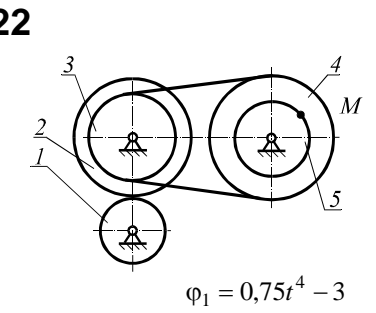
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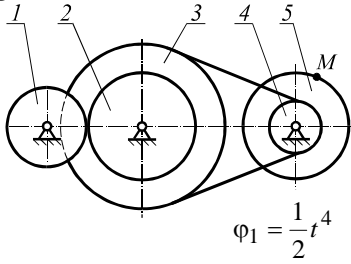
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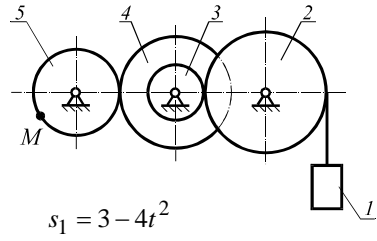
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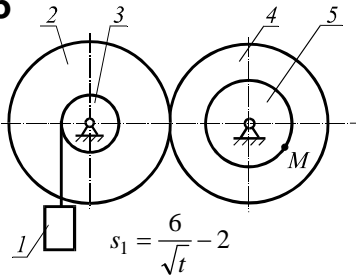
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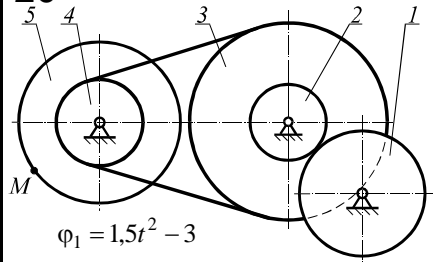
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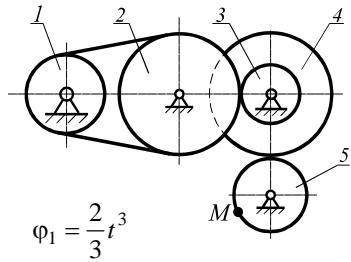
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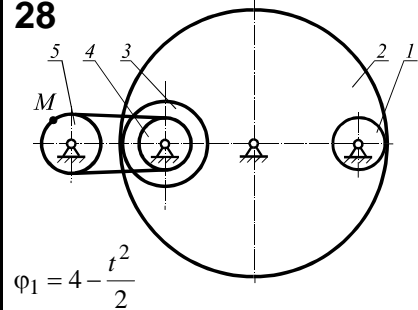
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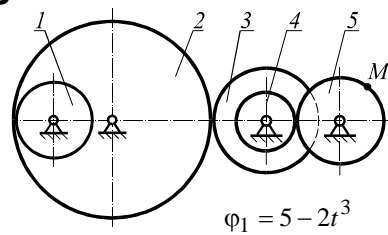
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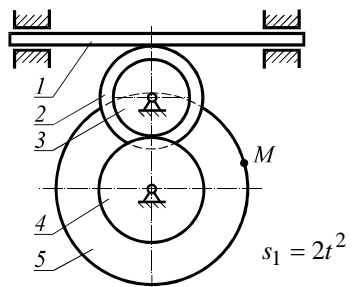
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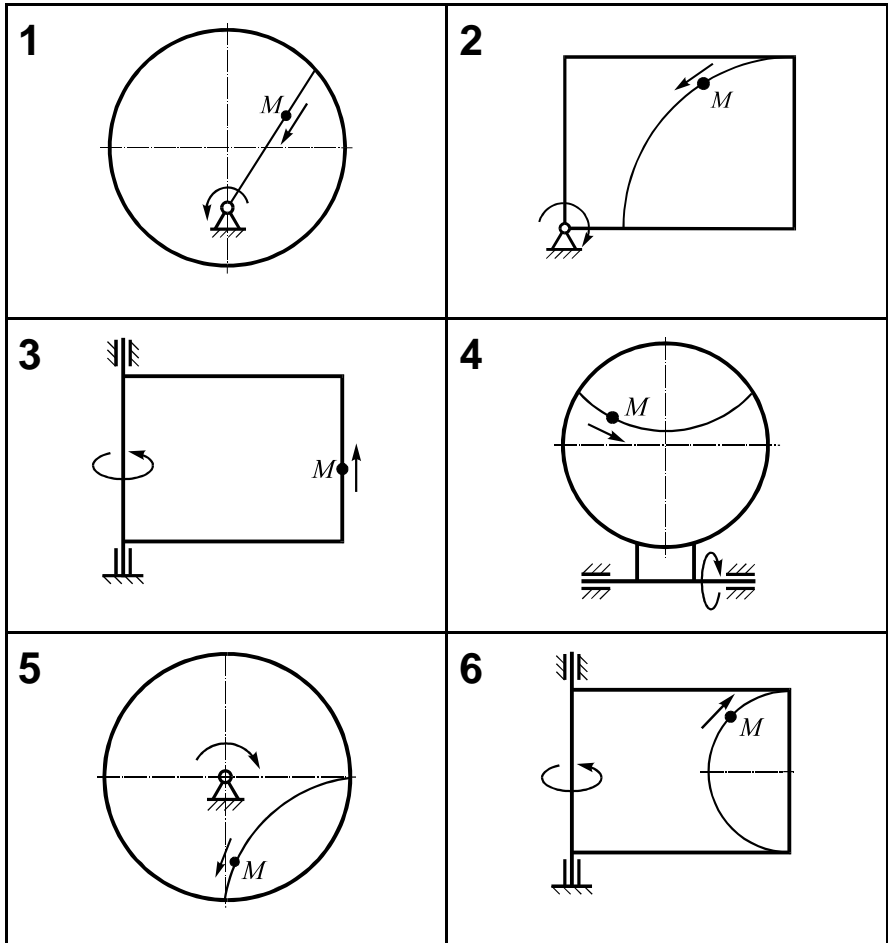
<p>1.</p> <p>4π / ,</p>	<p>2.</p> <p>$\varepsilon = -2\pi$ / ²,</p> <p>$\omega = 5\pi$ /</p> <p>$t = 1$.</p>
<p>3.</p> <p>$r = 2$</p> <p>$s_A = 6 + 4t - 0,5t^2$</p> <p>60°.</p>	<p>4.</p> <p>$r = 10$</p> <p>10 / c^2,</p> <p>$\alpha = 30^\circ$.</p> <p>$\omega_0 = 0$.</p>
<p>5.</p> <p>20 10</p> <p>5π / c.</p>	<p>6.</p> <p>5 .</p> <p>25π .</p>
<p>7.</p> <p>9</p>	<p>8.</p> <p>$d = 5$</p> <p>$\varepsilon = 2$ / ².</p> <p>5</p>

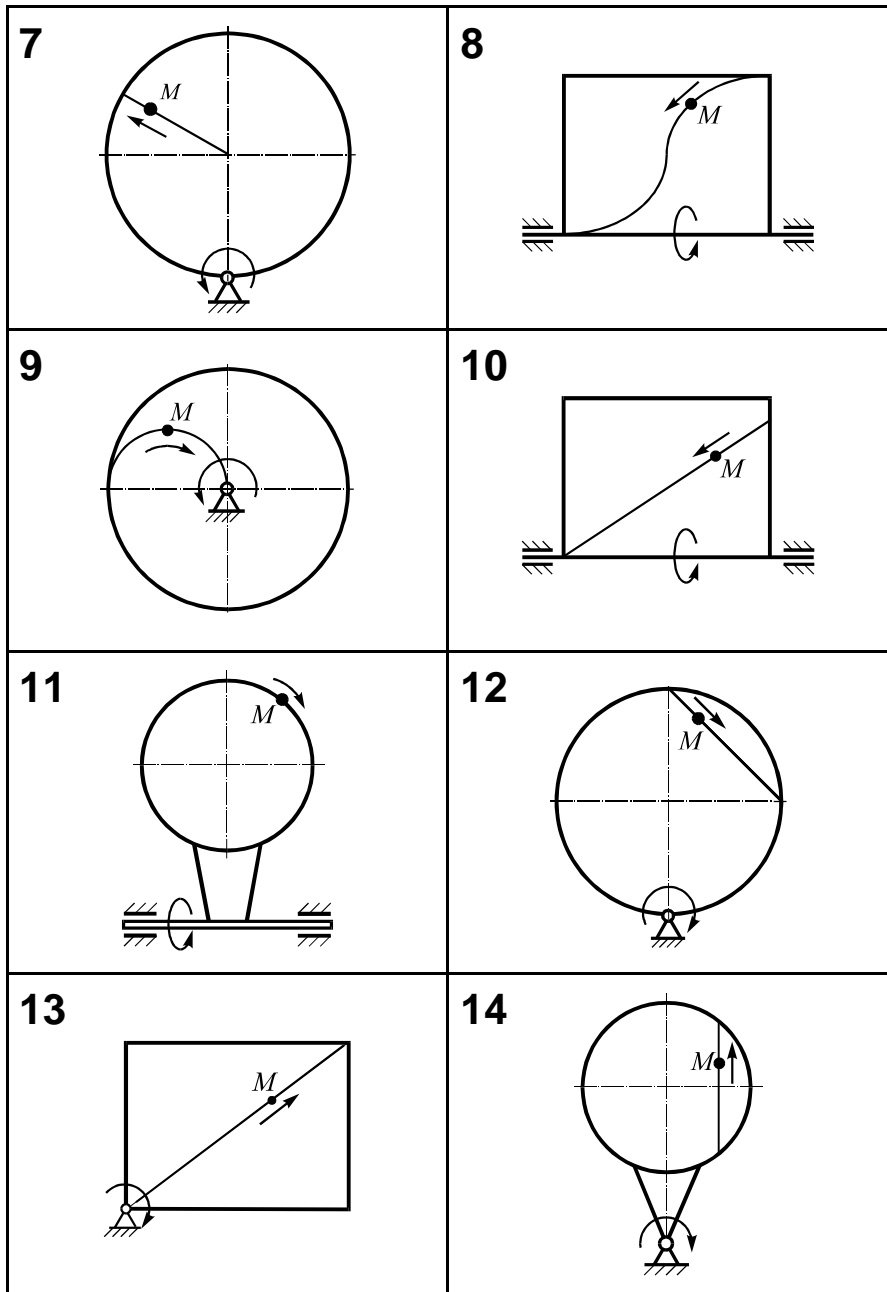
<p>9.</p> <p>...</p> <p>$3\pi / c.$</p>	<p>10.</p> <p>$\frac{10\pi}{20} / ,$</p>
<p>11.</p> <p>$r = 1 ,$</p> <p>$1 / \quad 2 / c^2 ($ $).$</p> <p>$\varphi = \varphi(t), \quad \varphi_0 = 0 \quad \omega_0 = 0 .$</p>	<p>12.</p> <p>$r = 0,1$</p> <p>$s_A = 2t + t^2 .$</p> <p>$\omega = \omega(t),$</p>
<p>13.</p> <p>10</p> <p>$a_n = 20t^2 .$</p> <p>$\varphi_0 = 3 .$</p>	<p>14.</p> <p>4 ,</p> <p>$\omega = 5\pi - \pi t / c.$</p> <p>2 .</p>
<p>15.</p> <p>$r = 1$</p> <p>$v_A = 10 - t / .$</p> <p>$t = 6 c,$</p> <p>$\varphi = \varphi(t),$</p> <p>$\varphi_0 = 0 .$</p>	<p>16.</p> <p>$r = 10 ,$</p> <p>$v_A = 5t / .$</p> <p>$t = 1 c,$</p> <p>$\varphi = \varphi(t), \quad \varphi_0 = 0 .$</p>

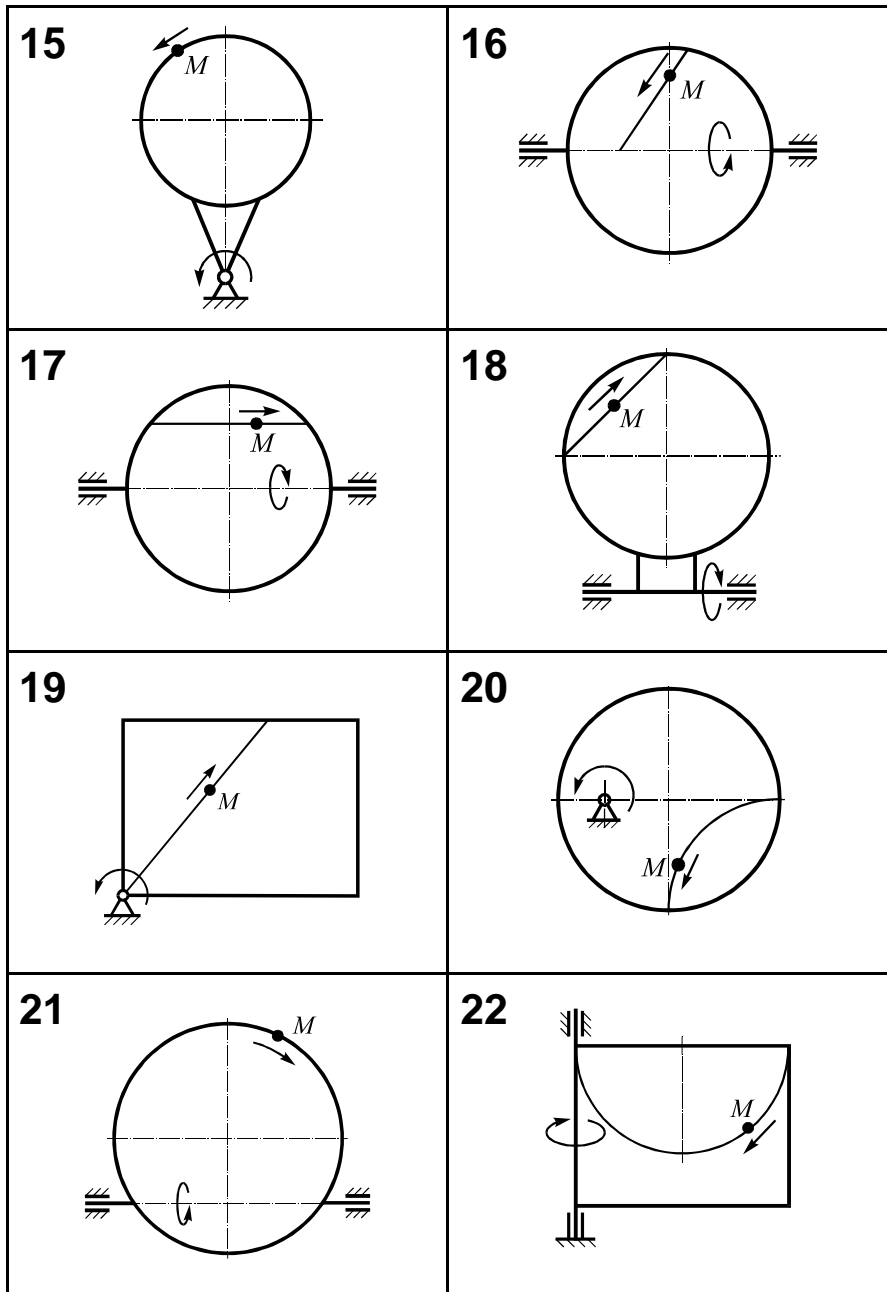
<p>17.</p> <p>$s = 10\pi t^2$</p> <p>10</p>	<p>18.</p> <p>25</p> <p>2</p>
<p>19.</p> <p>$r = 5$</p> <p>$4 / c^2$,</p> <p>$\gamma = 60^\circ$.</p> <p>$\varphi_0 = 0, \omega_0 = 0$,</p>	<p>20.</p> <p>$\omega = 2t / c$.</p> <p>$r = 0,1$</p> <p>$t = 3 c$,</p> <p>$\varphi = \varphi(t), \varphi_0 = 0$.</p>
<p>21.</p> <p>5 / c^2,</p> <p>10</p> <p>2</p>	<p>22.</p> <p>4</p> <p>$\sqrt{35} / c^2$.</p>
<p>23.</p> <p>$r = 1$</p> <p>10 / c^2.</p> <p>$t = 4 c$,</p> <p>$\varphi = \varphi(t)$,</p> <p>$\varphi_0 = 0 \quad \omega_0 = 2 /$</p>	<p>24.</p> <p>10</p> <p>100 /</p> <p>2</p>

<p>25.</p> <p>$\varepsilon = 2 \quad / \quad ^2.$</p> <p>$r = 0,5$,</p> <p>$t = 1 \text{ c},$</p> <p>$\varphi_0 = 0 \quad \omega_0 = 1 \quad / .$</p>	<p>26.</p> <p>$\varepsilon = 1,5 \quad / .$</p> <p>$r = 0,3$,</p> <p>$\omega_0 = 6 \quad / .$</p>
<p>27.</p> <p>$r = 2$,</p> <p>$2 \quad / \quad ^2,$</p> <p>$\beta = 30^\circ .$</p> <p>$\omega = \omega(t) .$</p>	<p>28.</p> <p>$t = 2$</p> <p>$r = 1$,</p> <p>$4 \quad / \quad c^2.$</p> <p>$\beta = 45^\circ , \quad \omega_0 = 0 .$</p>
<p>29.</p> <p>$r = 0,5$,</p> <p>$a_A^x = -2 \quad / \quad ^2.$</p> <p>$t = 3 \text{ c},$</p> <p>$t = 0 \quad v_{A0} = 10 \quad / .$</p>	<p>30.</p> <p>$r = 4$,</p> <p>$4 \quad ^2 \quad / \quad c^2.$</p> <p>$t = 1 \text{ c}.$</p>

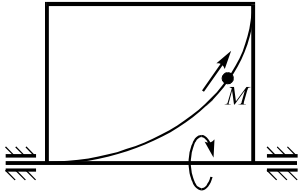
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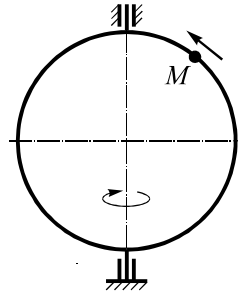




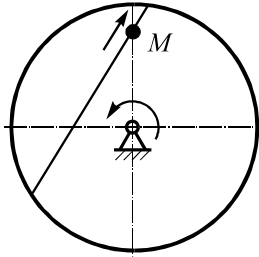
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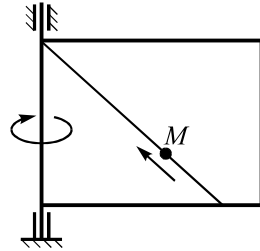
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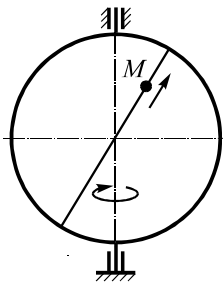
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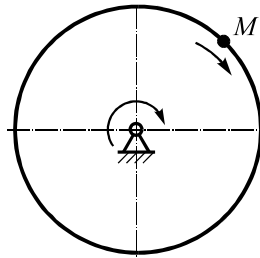
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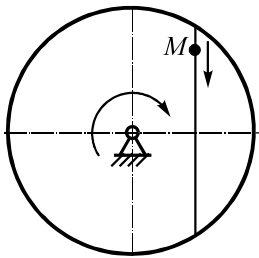
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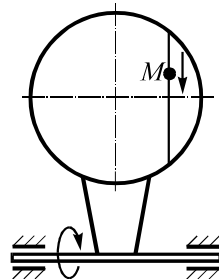
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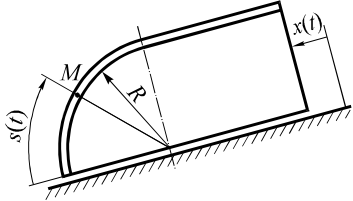
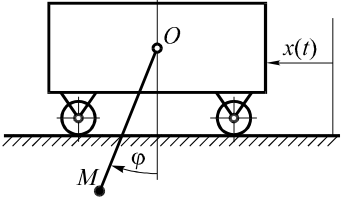
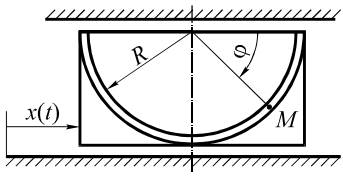
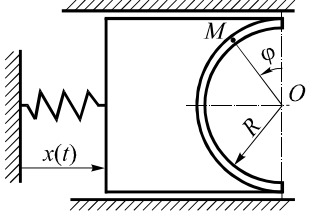
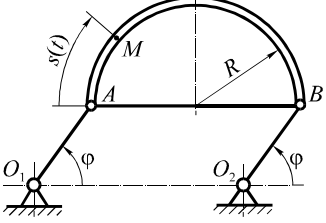
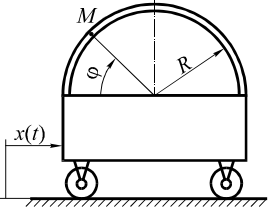


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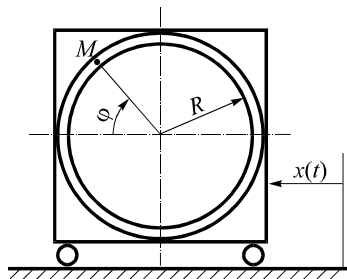


30



<p>1</p>  <p> $s(t) = 2 t^3$; $x(t) = 20t^2 - 15t$; $t = 1$ c ; $R = 8$ </p>	<p>2</p>  <p> $\varphi(t) = \frac{\pi t^2}{6}$; $x(t) = 4t^2 - t$ $t = 1$; $l = 20$ </p>
<p>3</p>  <p> $\varphi(t) = \frac{4}{3} t^2$; $x(t) = 10 + 3 \sin t$; $t = \frac{1}{2}$; $R = 4$ </p>	<p>4</p>  <p> $\varphi(t) = \frac{t^2}{4}$; $x(t) = 7t^2 - 4t$; $t = 1$; $R = 5$ </p>
<p>5</p>  <p> $\varphi(t) = \frac{1}{2} \sin \frac{t}{6}$; $s(t) = 4 t^3$; $t = 1$; $R = 8$; $O_1 A = O_2 B = l = 10$ </p>	<p>6</p>  <p> $\varphi(t) = 3 t^2$; $x(t) = 2 \sin t$; $t = \frac{1}{3}$; $R = 15$ </p>

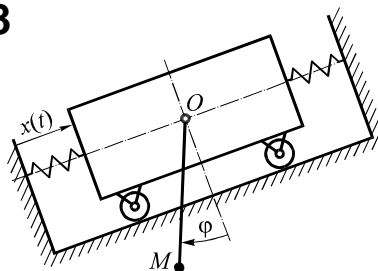
7



$$\varphi(t) = 4t^2 \quad ; \quad x(t) = 16t^2 - 12t \quad ;$$

$$t = \frac{1}{4} \quad ; \quad R = 8$$

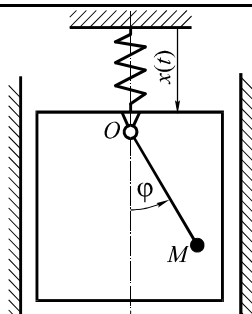
8



$$\varphi(t) = \frac{\pi t^2}{4} \quad ; \quad x(t) = 4t^3 - 3t \quad ;$$

$$t = 1 \quad ; \quad OM = l = 5$$

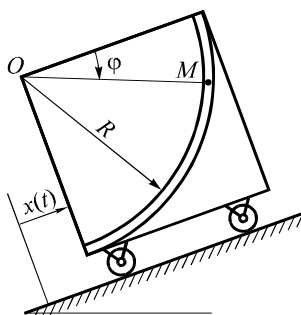
9



$$\varphi(t) = 4t^2 \quad ; \quad x(t) = 4t^2 + 8t \quad ;$$

$$t = \frac{1}{4} \quad ; \quad OM = l = 5$$

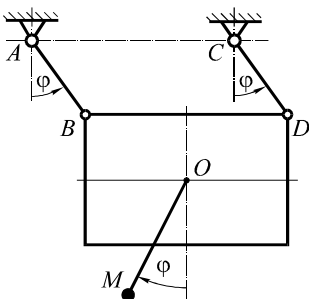
10



$$\varphi(t) = \pi t^2 \quad ; \quad x(t) = 4t^2 \quad ;$$

$$t = 0,5 \quad ; \quad R = 5$$

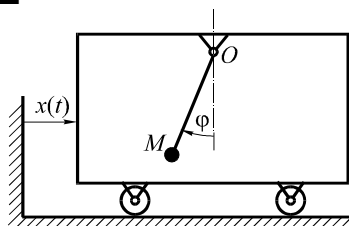
11



$$\varphi(t) = 6t^2 \quad ; \quad t = \frac{1}{6} \text{ c};$$

$$OM = l = 6 \quad ; \quad AB = CD = 4$$

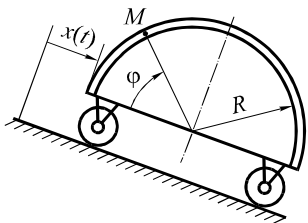
12



$$\varphi(t) = \frac{\pi t^2}{3} \quad ; \quad x(t) = 12 \sin \frac{\pi t}{4} \quad ;$$

$$t = 1 \quad ; \quad OM = l = 5$$

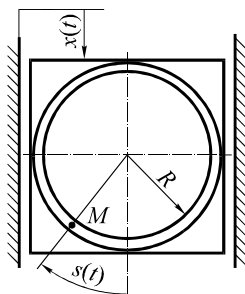
13



$$\varphi(t) = \frac{4}{3} t^2 \quad ; \quad x(t) = 8 \cos \frac{t}{2} \quad ;$$

$$t = \frac{1}{2} \text{ c} ; R = 15$$

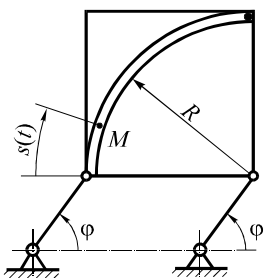
14



$$s(t) = \frac{5}{3} t^2 \quad ; \quad x(t) = 6t^2 + 4t \quad ;$$

$$t = 1 ; R = 5 \quad ;$$

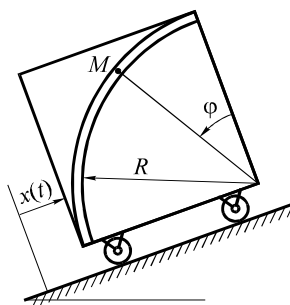
15



$$s(t) = \frac{7}{2} t^2 \quad ; \quad \varphi(t) = 10 \cos \frac{t}{4} \quad ;$$

$$t = 1 ; R = 7$$

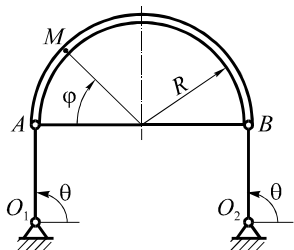
16



$$\varphi(t) = \frac{1}{6} t^2 \quad ; \quad x(t) = 16t^2 - 2t + 2 \quad ;$$

$$t = 1 ; R = 10$$

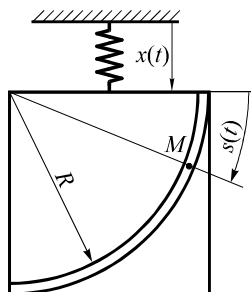
17



$$\varphi(t) = 3 t^2 \quad ; \quad (t) = \frac{9}{2} t^2 \quad ; \quad t = \frac{1}{3}$$

$$O_1 A = O_2 B = l = 5 \quad ; \quad R = 4$$

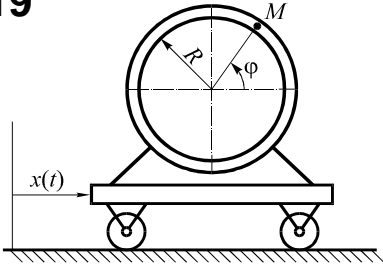
18



$$s(t) = \frac{5}{6} t^2 \quad ; \quad x(t) = 24t - 6t^2 \quad ;$$

$$t = 1 ; R = 5$$

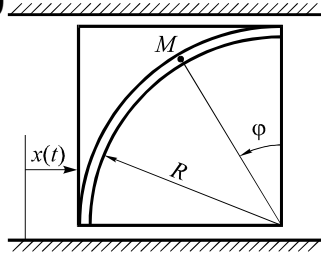
19



$$\varphi(t) = \frac{t^2}{3} ; x(t) = 2t^2 + 8t ;$$

$$t = 1 ; R = 6$$

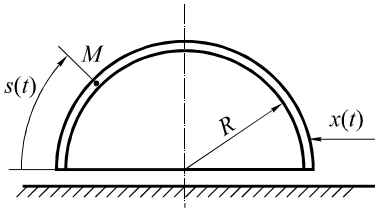
20



$$\varphi(t) = 3 t^2 ; x(t) = 15 \sin t ;$$

$$t = \frac{1}{3} ; R = 12 ;$$

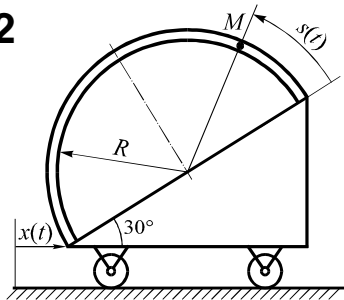
21



$$s(t) = \frac{10}{3} t^2 ; x(t) = 4 \sin \frac{t}{4} ;$$

$$t = 1 ; R = 10$$

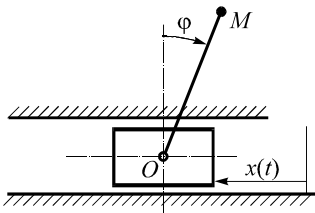
22



$$s(t) = \frac{16\pi t^2}{3} ; t = \frac{1}{2} ;$$

$$x(t) = 12t^2 - 4t ; R = 8 ;$$

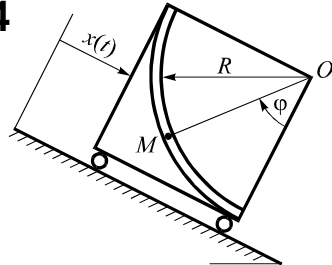
23



$$\varphi(t) = \frac{\pi t^2}{6} ; x(t) = 30 \sin \frac{\pi t}{3} ;$$

$$t = 1 ; OM = l = 20$$

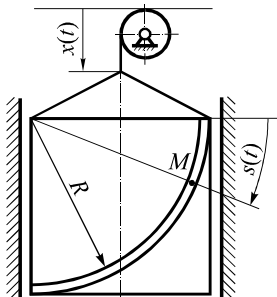
24



$$\varphi(t) = \frac{2}{3} t^2 ; x(t) = 15 \cos \frac{t}{2} ;$$

$$t = \frac{1}{2} ; R = 10$$

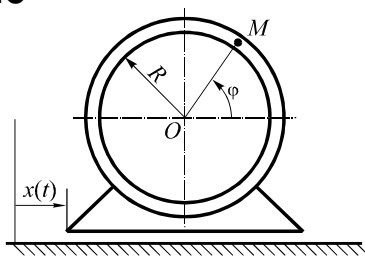
25



$$s(t) = \frac{7}{6} t^2 ; x(t) = 12t^2 - 14t ;$$

$$t = 1 ; R = 7$$

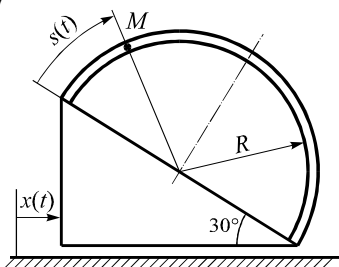
26



$$\varphi(t) = 2\pi t^3 ; x(t) = 20 \sin \pi t ;$$

$$t = \frac{1}{2} ; R = 3$$

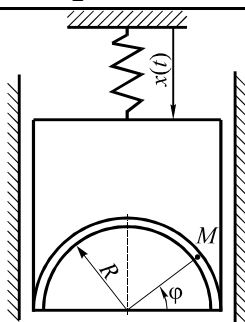
27



$$s(t) = \frac{15\pi t^2}{6} ; x(t) = 4t^3 - t^2 ;$$

$$t = 1 ; R = 15$$

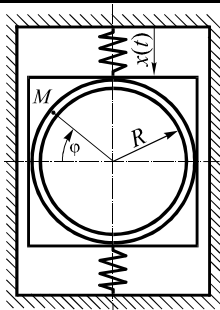
28



$$\varphi(t) = \frac{\pi t^2}{3} ; x(t) = -10 \sin \frac{\pi t}{4} ;$$

$$t = 1 ; R = 6$$

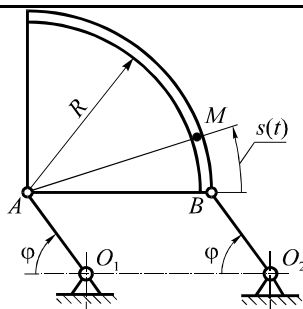
29



$$\varphi(t) = \frac{t^3}{6} ; x(t) = 5 \cos \frac{t}{4} ;$$

$$t = 1 ; R = 4$$

30

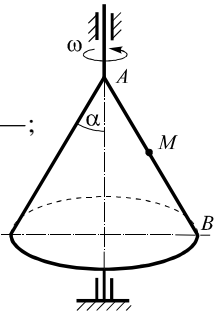
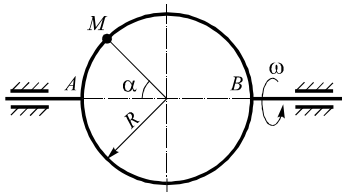
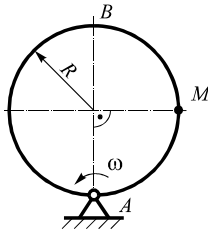
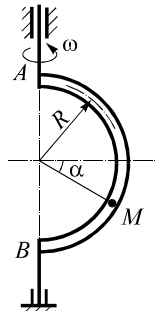
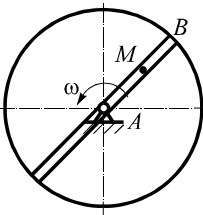
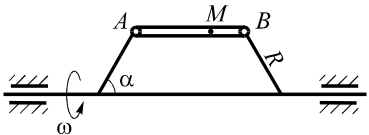


$$\varphi(t) = \frac{t^3}{6} ; s(t) = \frac{10}{3} t^2 ;$$

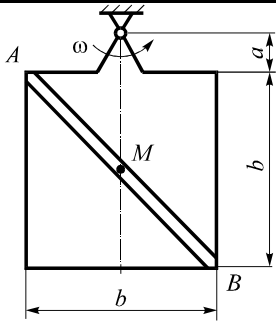
$$t = 1 ; O_1A = O_2B = 6 ; R = 10$$

ω

t

<p>1</p> <p>$= 3t^2 - 2t \text{ c}^{-1}$;</p> <p>$v = 20 \cos \frac{\pi t}{3} \text{ —}$;</p> <p>$t = 1$;</p> <p>$AM = 5$</p> <p>$\alpha = 30^\circ$;</p> 	<p>2</p>  <p>$\omega = 5t + 3t^2 \text{ c}^{-1}$; $v = 5\pi t^2 \text{ —}$;</p> <p>$t = 1 \text{ c}$; $R = 5$; $\alpha = 45^\circ$</p>
<p>3</p> <p>$\omega = 8 \cos \frac{\pi t}{4} \text{ c}^{-1}$;</p> <p>$v = 5\pi t^2 \text{ —}$;</p> <p>$R = 5$;</p> <p>$t = 1$;</p> 	<p>4</p> <p>$\omega = 10t - 5t^2 \text{ c}^{-1}$;</p> <p>$v = 8\pi t^3 \text{ —}$;</p> <p>$t = 2$;</p> <p>$R = 4$;</p> <p>$\alpha = 45^\circ$</p> 
<p>5</p> <p>$\omega = 5t - 4t^2 \text{ c}^{-1}$;</p> <p>$v = 40 \sin \frac{\pi t}{6} \text{ —}$;</p> <p>$t = 1 \text{ c}$;</p> <p>$AM = 3$</p> 	<p>6</p>  <p>$\omega = 10t - 6t^2 \text{ c}^{-1}$; $v = 35 \sin \frac{\pi t}{4} \text{ —}$;</p> <p>$t = 1 \text{ c}$; $R = 6$; $\alpha = 60^\circ$</p>

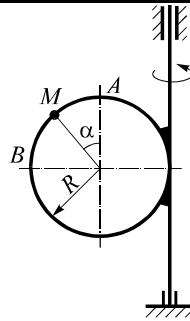
7



$$\omega = 2t^2 - 3t \text{ c}^{-1}; \quad v = 5 \sin \frac{\pi t}{2} \text{ —};$$

$$t = 1 \text{ c}; \quad a = 2 \quad ; \quad b = 10 \quad ;$$

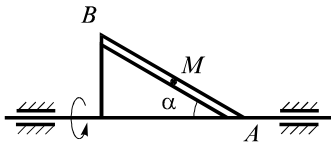
8



$$\omega = 1,5t^2 \text{ c}^{-1}; \quad v = 6\pi t^2 \text{ —};$$

$$t = 1 \text{ c}; \quad R = 5 \quad ; \quad \alpha = 30^\circ$$

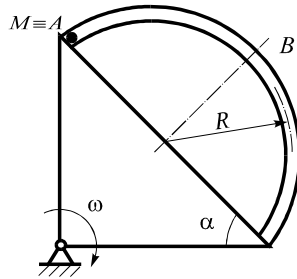
9



$$\omega = 6t + t^2 \text{ c}^{-1}; \quad v = 50 \sin \frac{\pi t}{4} \text{ —};$$

$$t = 1 \text{ c}; \quad AM = 4 \quad ; \quad \alpha = 30^\circ$$

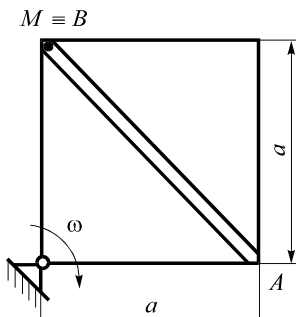
10



$$\omega = 5t^2 \text{ c}^{-1}; \quad v = 25 \sin \frac{\pi t}{3} \text{ —};$$

$$t = 1 \text{ c}; \quad R = 5 \quad ; \quad \alpha = 30^\circ$$

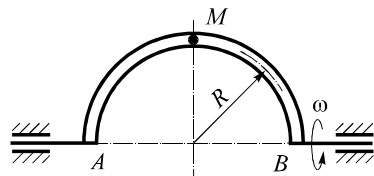
11



$$\omega = 4t^2 - 3t \text{ c}^{-1}; \quad v = 20 \cos \frac{\pi t}{2} \text{ —};$$

$$t = 1 \text{ c}; \quad a = 5$$

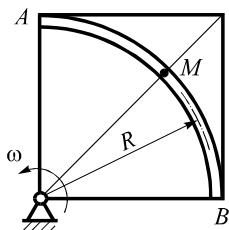
12



$$\omega = 8 \cos \frac{\pi t}{6} \text{ c}^{-1}; \quad v = 20t^2 \text{ —};$$

$$t = 1 \text{ c}$$

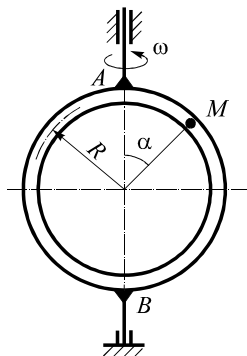
13



$$\omega = 3t^2 - 2t \text{ c}^{-1}; v = 15t^2 \text{ —};$$

$$t = 1 \text{ c}; R = 6$$

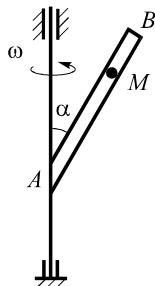
14



$$\omega = 2 \sin \frac{\pi t}{3} \text{ c}^{-1}; v = 4\pi t^2 \text{ —};$$

$$t = 1 \text{ c}; R = 4; \alpha = 45^\circ$$

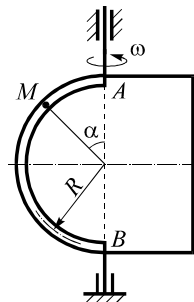
15



$$\omega = 4 \cos \frac{\pi t}{3} \text{ c}^{-1}; v = 3t^2 - t \text{ —};$$

$$t = 1 \text{ c}; AM = 6; \alpha = 30^\circ$$

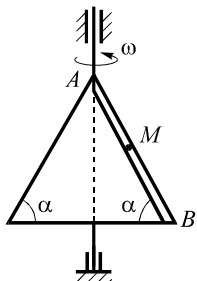
16



$$\omega = 6t - 2t^2 \text{ c}^{-1}; v = 5\pi t^2 \text{ —};$$

$$t = 1 \text{ c}; R = 5; \alpha = 45^\circ$$

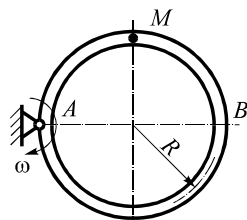
17



$$\omega = 5t - t^2 \text{ c}^{-1}; v = 4t^2 + 2 \text{ —};$$

$$t = 1 \text{ c}; AM = 4; \alpha = 60^\circ$$

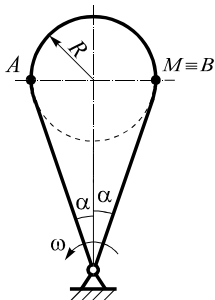
18



$$\omega = 7t^2 - 3 \text{ c}^{-1}; v = 40t^2 \text{ —};$$

$$t = 1 \text{ c}; R = 6$$

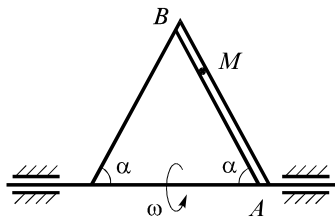
19



$$\omega = 6t^2 - 4t \text{ c}^{-1}; v = 30t^2 + 10 \text{ —};$$

$$R = 6 \quad ; \quad t = 1 \text{ c}; \quad \alpha = 30^\circ$$

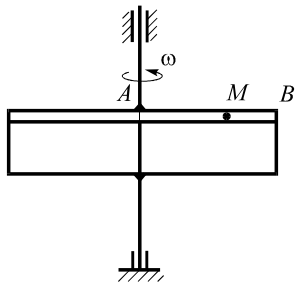
20



$$\omega = t^3 - 5t^{-1}; v = 20 \sin \frac{\pi t}{6} \text{ —};$$

$$t = 1 \text{ c} \quad AM = 4 \quad ; \quad \alpha = 60^\circ$$

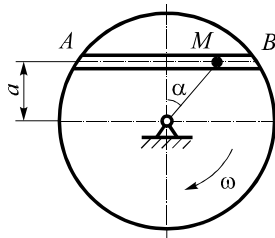
21



$$\omega = 5t^2 \text{ c}^{-1}; v = 12 \sin \frac{\pi t}{6} \text{ —};$$

$$t = 1 \text{ c}; \quad AM = 4$$

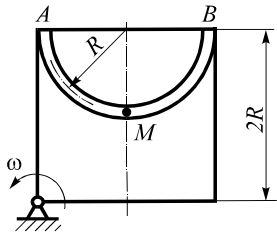
22



$$\omega = 3 \sin \frac{\pi t}{3} \text{ c}^{-1}; v = 4t^2 + 6t \text{ —};$$

$$t = 1 \text{ c}; \quad a = 5 \quad ; \quad \alpha = 30^\circ$$

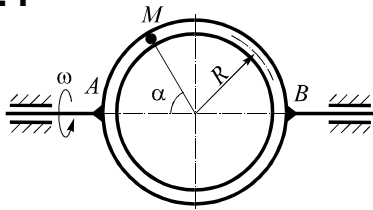
23



$$\omega = 4t - t^3 \text{ c}^{-1}; v = 25t^2 + 15 \text{ —};$$

$$t = 1 \text{ c}; \quad R = 8$$

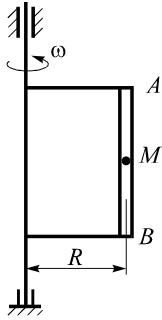
24



$$\omega = 2t^3 + 3 \text{ c}^{-1}; v = 20t^2 \text{ —};$$

$$t = 1 \text{ c}; \quad R = 5 \quad ; \quad \alpha = 60^\circ$$

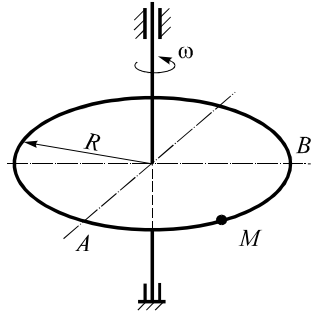
25



$$\omega = 2t^3 - 5t \text{ c}^{-1}; v = 30 \sin \frac{\pi t}{6} \text{ —};$$

$$t = 2; R = 4$$

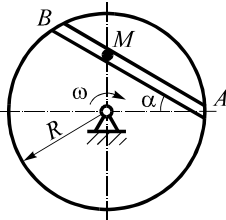
26



$$\omega = 12t - 3t^2 \text{ c}^{-1}; v = 5\pi t^2 \text{ —};$$

$$t = 1; R = 5$$

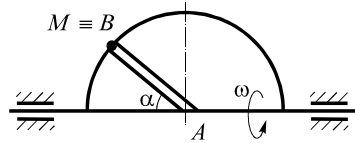
27



$$\omega = 2t^3 - t^2 \text{ c}^{-1}; v = 30 \sin \frac{\pi t}{6} \text{ —};$$

$$t = 1 \text{ c}; R = 5; \alpha = 30^\circ$$

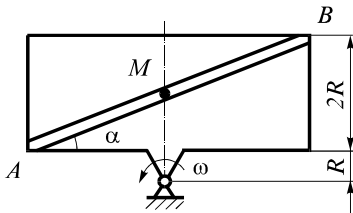
28



$$\omega = 2t - 4t^2 \text{ c}^{-1}; v = 36 \sin \frac{\pi t}{3} \text{ —};$$

$$t = 1 \text{ c}; R = 6; \alpha = 60^\circ$$

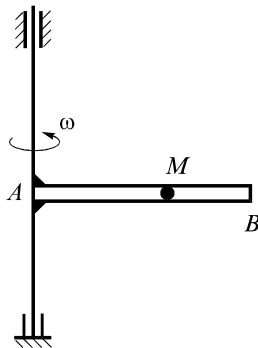
29



$$\omega = 2\pi t^2 - 4 \text{ c}^{-1}; v = 5t^2 + 7 \text{ —};$$

$$t = 1 \text{ c}; R = 4$$

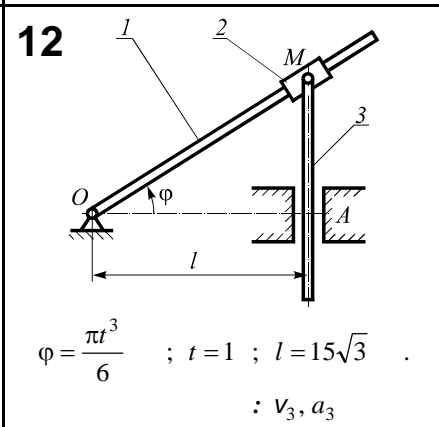
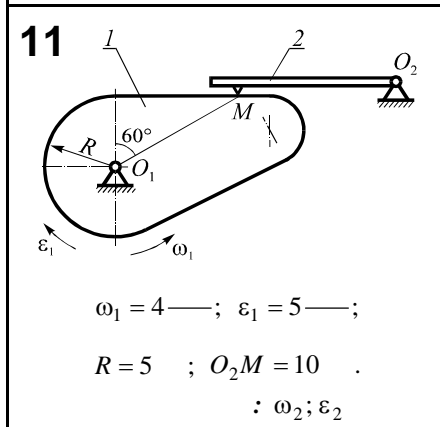
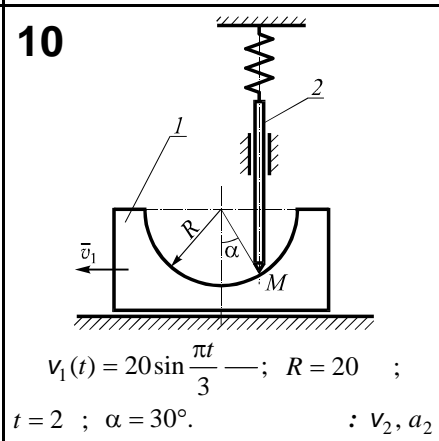
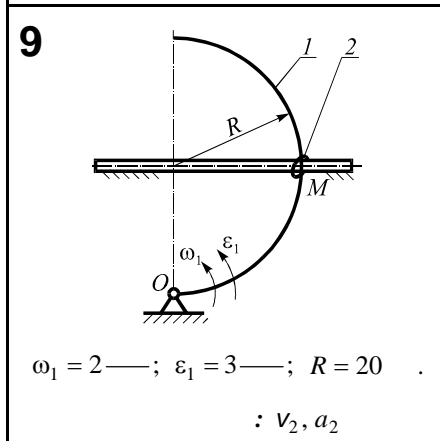
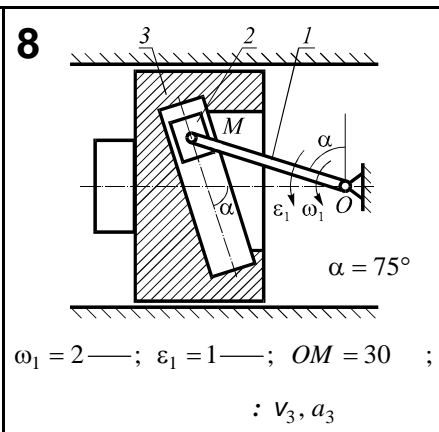
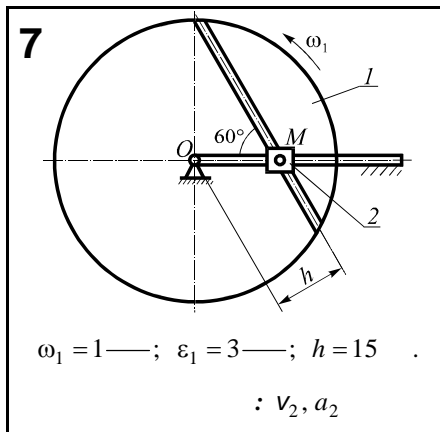
30



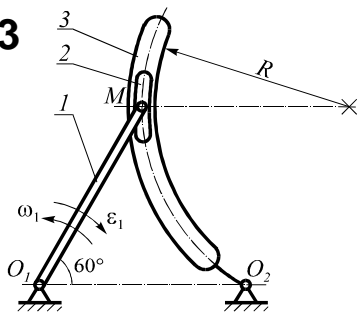
$$\omega = 4\pi t^2 \text{ c}^{-1}; v = 60t^2 + 15 \text{ —};$$

$$t = 0,5; AM = 7$$

<p>1</p> <p> $s_1(t) = 10t^2 - 25t$; $t = 1$; $OM = 20$. : $\omega_2; \varepsilon_2$ </p>	<p>2</p> <p> $\omega_1 = 2$ — = const; $R = 4\sqrt{3}$; $O_2A = 3$; $\alpha = 30^\circ$. : v_A, a_A </p>
<p>3</p> <p> $\omega_1 = 3$ — ; $\varepsilon_1 = 8$ — ; $O_1O_2 = 10$. : $\omega_3; \varepsilon_3$ </p>	<p>4</p> <p> $\omega_1 = 2$ — ; $\varepsilon_1 = 3$ — ; $h = 10$. : v_2, a_2 </p>
<p>5</p> <p> $\omega_1 = 1$ — ; $\varepsilon_1 = 2$ — ; $OA = 30$; $\alpha = 30^\circ$: v_2, a_2 </p>	<p>6</p> <p> $\omega_1 = 2$ — ; $\varepsilon_1 = 4$ — ; $R = 30$; : v_2, a_2 </p>

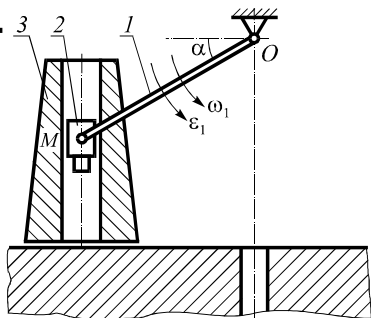


13



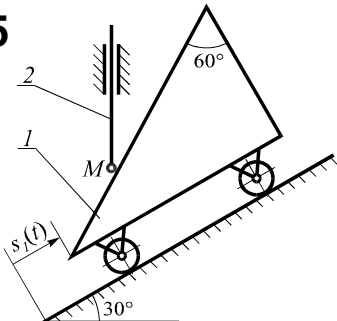
$\omega_1 = 1$ — ; $\varepsilon_1 = 1$ — ;
 $O_1O_2 = O_1M = R = 40$.
 : $\omega_3; \varepsilon_3$

14



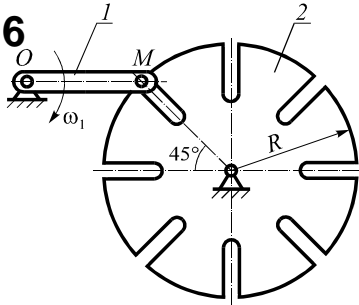
$\omega_1 = 1$ — ; $\varepsilon_1 = 3$ — ; $OM = 30$.
 : v_2, a_2

15



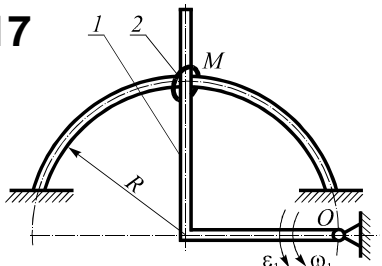
$s_1(t) = 25t - 10t^2$; $t = 1$.
 : v_2, a_2

16



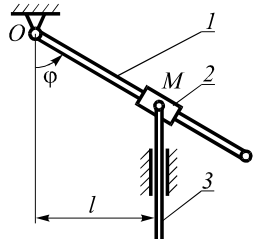
$\omega_1 = 4$ — = const; $R = 5$;
 $OM = 5$. : $\omega_2; \varepsilon_2$

17



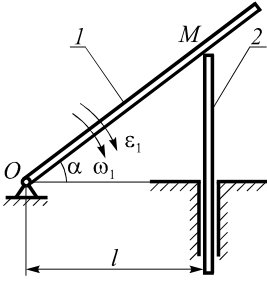
$\omega_1 = 1$ — ; $\varepsilon_1 = 3$ — ; $R = 30$.
 : v_2, a_2

18



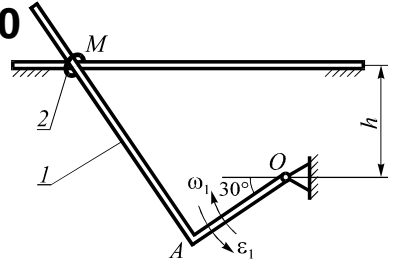
$\varphi_1(t) = \frac{\pi t^2}{6}$; $t = 1$; $l = 20$;
 : v_3, a_3

19



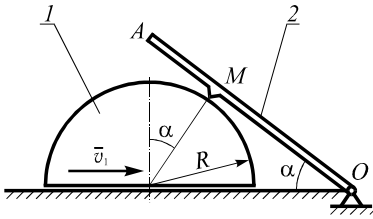
$\omega_1 = 2 \text{ —}; \quad \epsilon_1 = 2 \text{ —}; \quad l = 15 \text{ .}$
 $\alpha = 30^\circ. \quad : v_2, a_2$

20



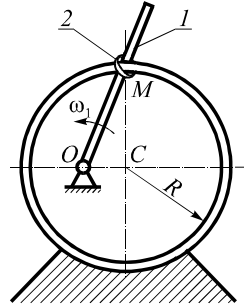
$\omega_1 = 2 \text{ —}; \quad \epsilon_1 = 5 \text{ —};$
 $OA = h = 20 \text{ .}$
 $: v_2, a_2$

21



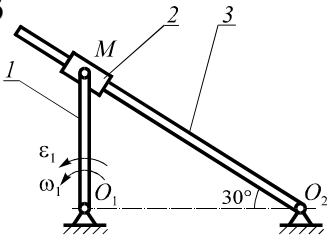
$v_1(t) = 5t + 2t^2 \text{ —}; \quad t = 2 \text{ ;}$
 $R = 5 \text{ ; } OA = 12 \text{ ; } \alpha = 30^\circ.$
 $: v_A, a_A$

22



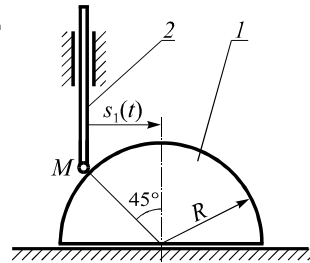
$\omega_1 = 3 - 2t \text{ —}; \quad t = 1 \text{ ; } OC = 6 \text{ ;}$
 $R = 8 \text{ .} \quad : v_2, a_2$

23



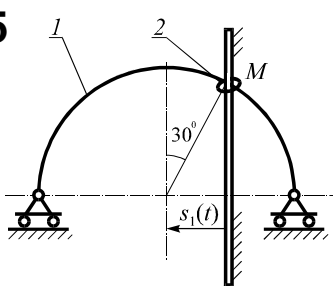
$\omega_1 = 2 \text{ —}; \quad \epsilon_1 = 1 \text{ —}; \quad O_1M = 35 \text{ .}$
 $: \omega_3; \epsilon_3$

24



$s_1(t) = 5t^2 + 10t \text{ ; } t = 2 \text{ ;}$
 $R = 15 \text{ .}$
 $: v_2, a_2$

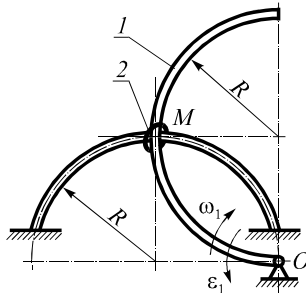
25



$$s_1(t) = 20 \cos \pi t \quad ; \quad t = \frac{1}{3} .$$

: v_2, a_2

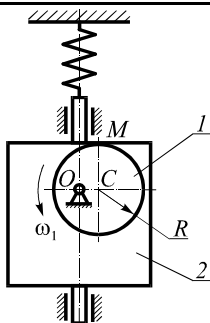
26



$$\omega_1 = 2 \text{---} ; \quad \epsilon_1 = 3 \text{---} ; \quad R = 10 .$$

: v_2, a_2

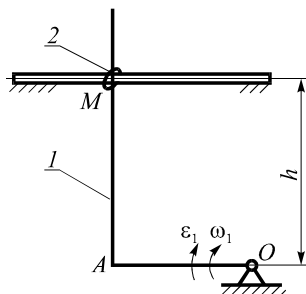
27



$$\omega_1 = 5 \text{---} = \text{const} ; \quad R = 5 ;$$

$$OC = 3 . \quad : v_2, a_2$$

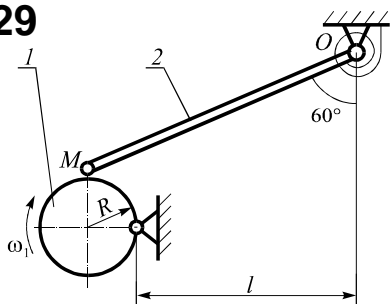
28



$$\omega_1 = 1 \text{---} ; \quad \epsilon_1 = 3 \text{---} ; \quad OA = 6 ;$$

$$h = 8 . \quad : v_2, a_2$$

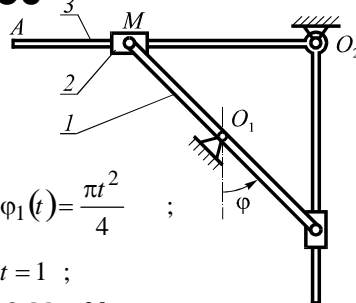
29



$$\omega_1 = 2 \text{---} = \text{const} ; \quad R = 4 ;$$

$$l = 8 . \quad : \omega_2 ; \epsilon_2$$

30

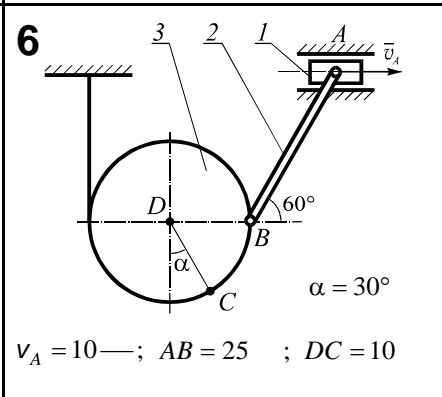
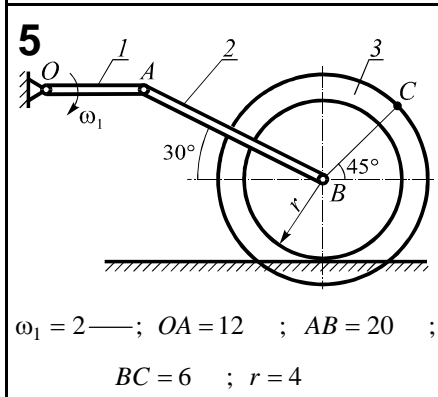
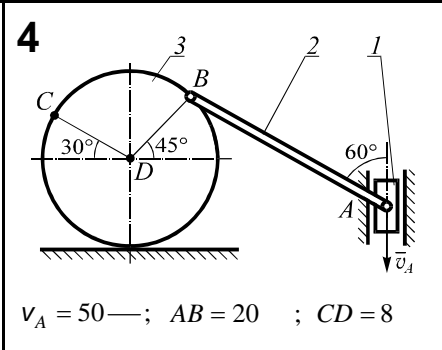
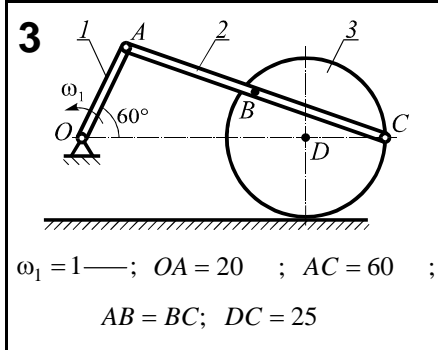
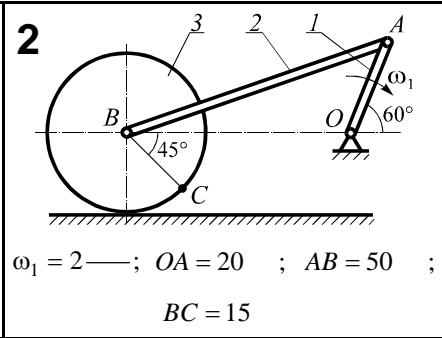
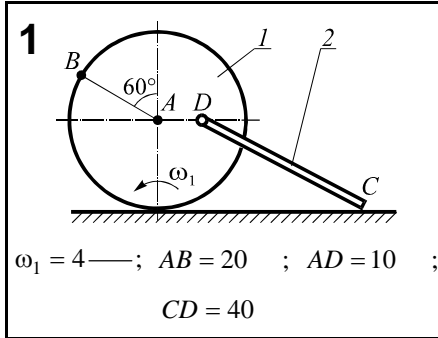


$$\varphi_1(t) = \frac{\pi t^2}{4} ;$$

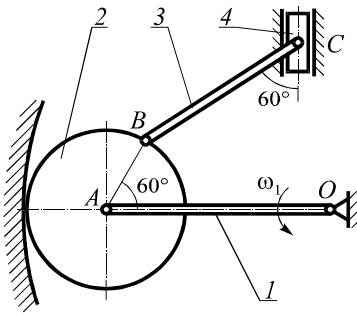
$$t = 1 ;$$

$$O_1M = 20 .$$

: $\omega_3 ; \epsilon_3$

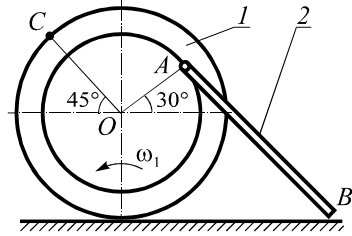


7



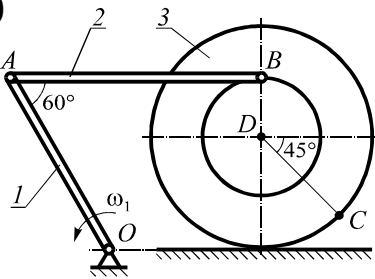
$\omega_1 = 4$ — ; $OA = 15$; $AB = 3$;
 $BC = 10$

8



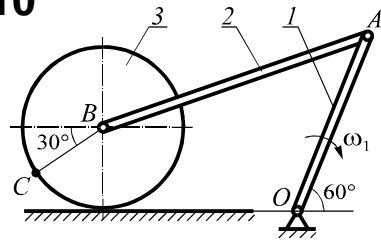
$\omega_1 = 3$ — ; $OA = 25$; $OC = 35$;
 $AB = 70$

9



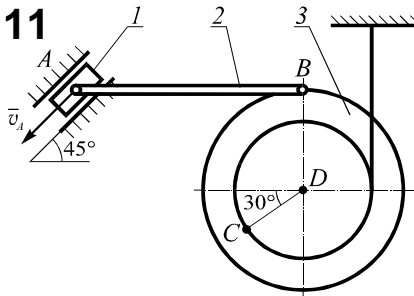
$\omega_1 = 2$ — ; $OA = 10$; $AB = 12$;
 $BD = 3$

10



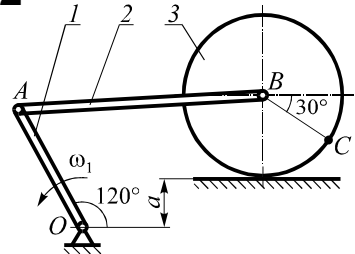
$\omega_1 = 3$ — ; $OA = 20$; $AB = 25$;
 $BC = 8$

11



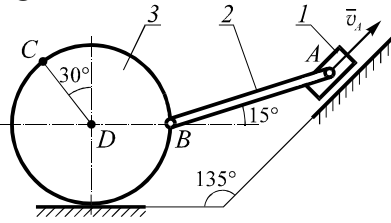
$v_A = 30$ — ; $AB = 20$; $BD = 8$;
 $CD = 5$

12



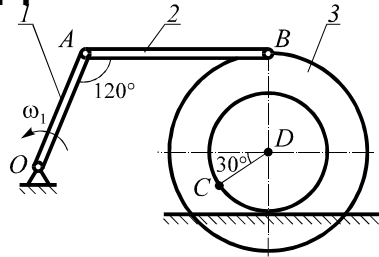
$\omega_1 = 1$ — ; $OA = 25$; $AB = 50$;
 $BC = 16$; $a = 10$

13



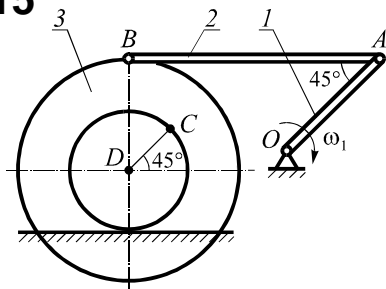
$v_A = 10$ — ; $AB = 20$; $CD = 10$

14



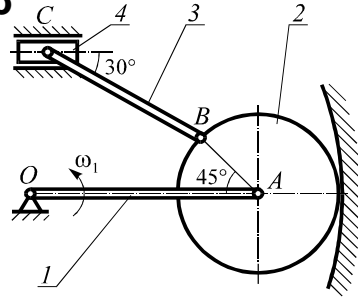
$\omega_1 = 4$ — ; $OA = 15$; $AB = 25$;
 $BD = 10$; $CD = 6$

15



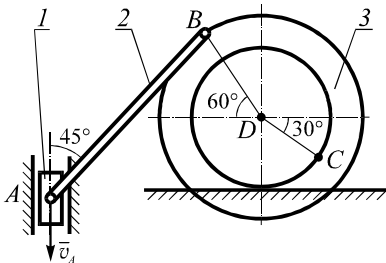
$\omega_1 = 2$ — ; $OA = 8$; $AB = 15$;
 $BD = 10$; $CD = 5$

16



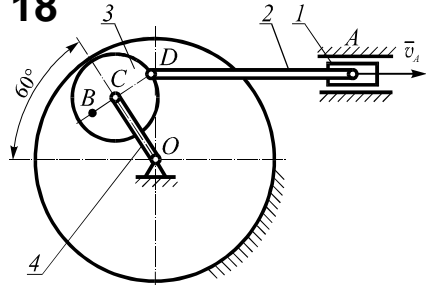
$\omega_1 = 3$ — ; $OA = 8$; $AB = 3$;
 $BC = 15$

17



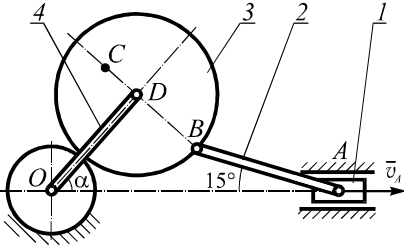
$v_A = 20$ — ; $AB = 15$; $BD = 6$;
 $CD = 4$

18



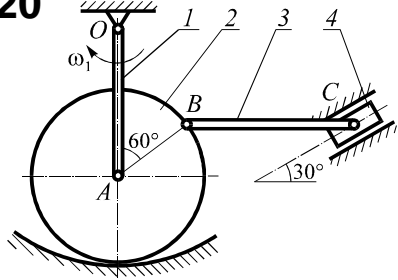
$v_A = 10$ — ; $AD = 25$; $CD = 6$;
 $BC = 4$

19



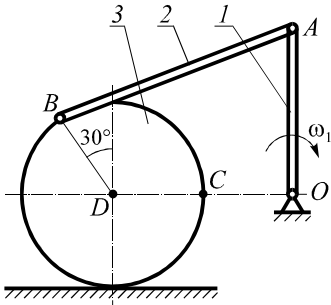
$v_A = 5$ — ; $AB = 15$; $BD = 8$;
 $CD = 4$; $\alpha = 45^\circ$

20



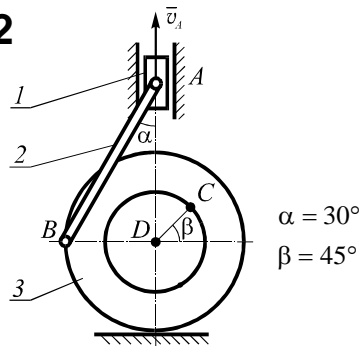
$\omega_1 = 4$ — ; $OA = 15$; $AB = 8$;
 $BC = 20$

21



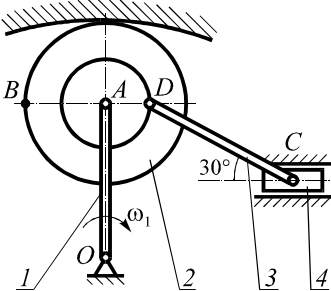
$\omega_1 = 2$ — ; $OA = 10$; $AB = 15$;
 $BD = 5$

22



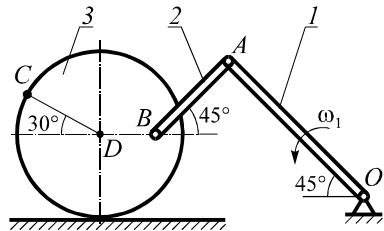
$v_A = 40$ — ; $AB = 30$; $CD = 8$

23



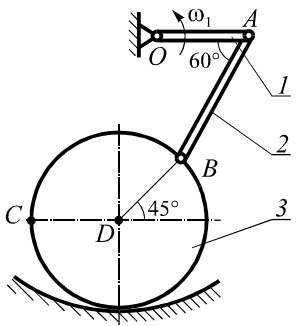
$\omega_1 = 5$ — ; $OA = 25$; $AB = 15$;
 $AD = 8$; $CD = 25$

24



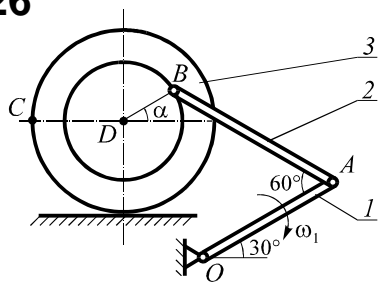
$\omega_1 = 1$ — ; $OA = 20$;
 $AB = 10$; $CD = 8$; $BD = 5$

25



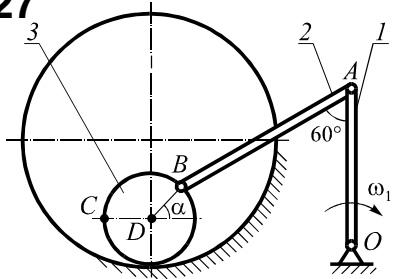
$\omega_1 = 2$ — ; $OA = 8$; $AB = 16$;
 $BD = 8$

26



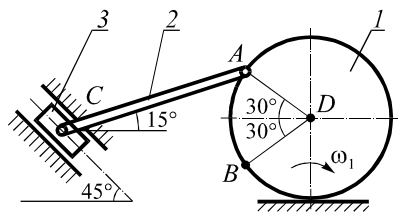
$\omega_1 = 2$ — ; $OA = 20$; $AB = 25$;
 $BD = 6$; $CD = 10$; $\alpha = 30^\circ$

27



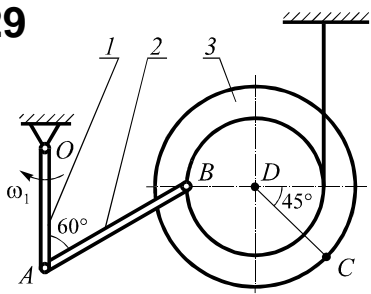
$\omega_1 = 3$ — ; $OA = 30$; $AB = 40$;
 $BD = 8$; $\alpha = 30^\circ$

28



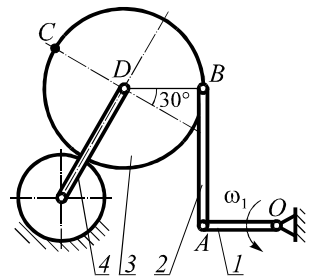
$\omega_1 = 2$ — ; $AD = 5$; $AC = 15$

29

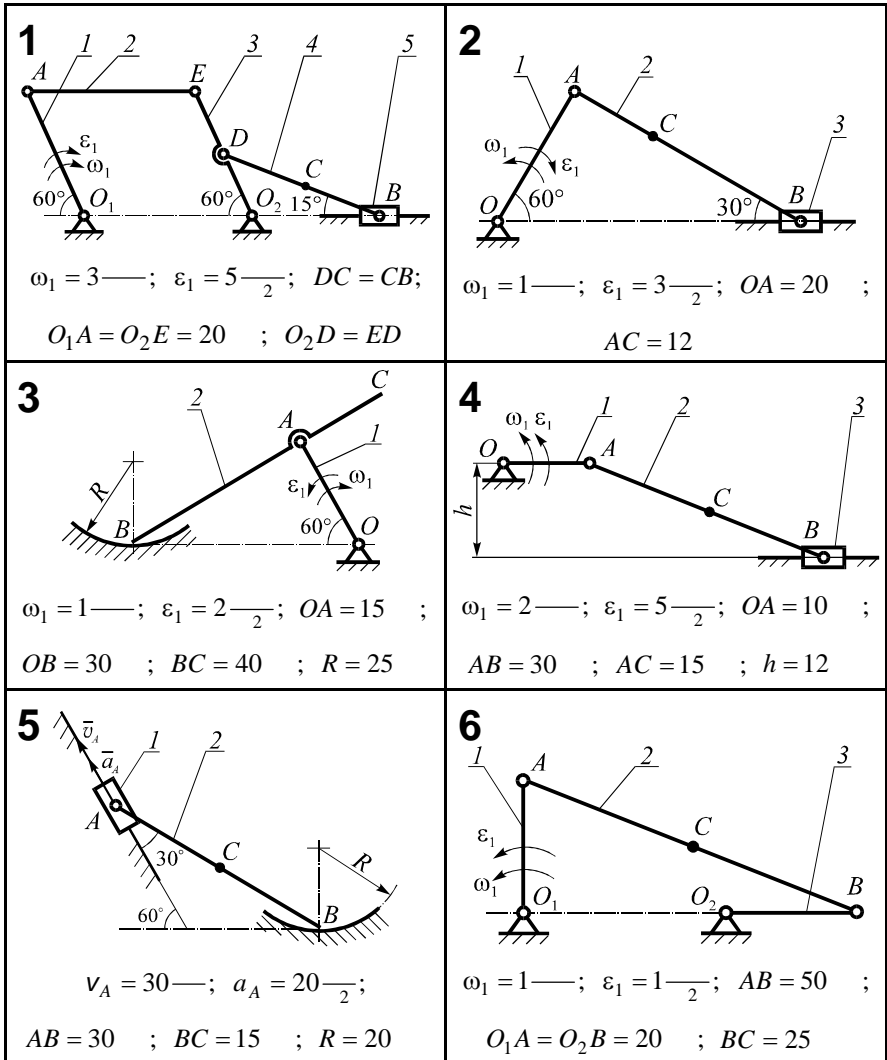


$\omega_1 = 3$ — ; $OA = 10$; $AB = 16$;
 $BD = 6$; $CD = 8$

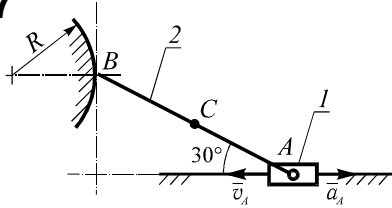
30



$\omega_1 = 1$ — ; $OA = 8$; $AB = 15$;
 $CD = 10$

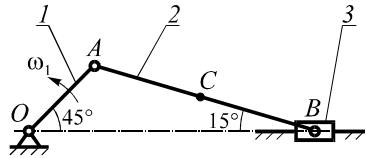


7



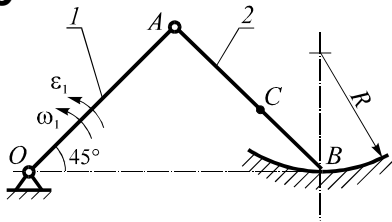
$v_A = 20$ — ; $a_A = 30$ —₂ ;
 $AB = 50$; $BC = 25$; $R = 40$

8



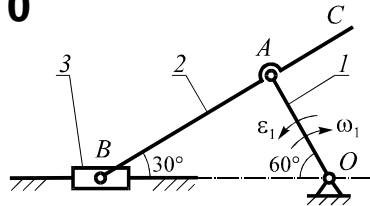
$\omega_1 = 4$ — ; $\epsilon_1 = 0$; $OA = 10$;
 $AC = BC$

9



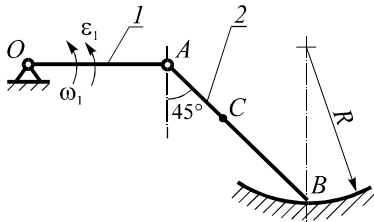
$\omega_1 = 3$ — ; $\epsilon_1 = 4$ —₂ ; $OB = 40$;
 $BC = 12$; $R = 20$

10



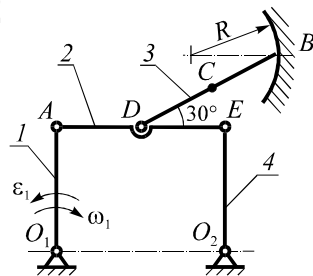
$\omega_1 = 1$ — ; $\epsilon_1 = 4$ —₂ ; $AB = 30$;
 $BC = 45$

11



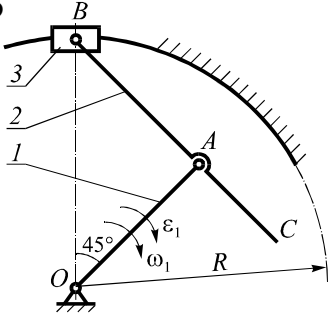
$\omega_1 = 2$ — ; $\epsilon_1 = 2$ —₂ ; $OA = 25$;
 $AB = 35$; $BC = 20$; $R = 30$

12



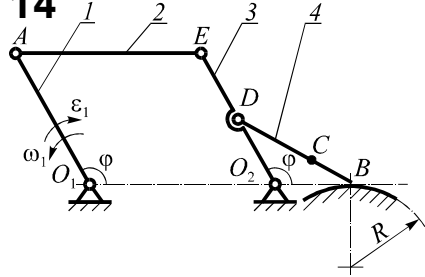
$\omega_1 = 2$ — ; $\epsilon_1 = 1$ —₂ ; $BC = 15$;
 $O_1A = O_2E = 25$; $BD = 30$;
 $R = 20$

13



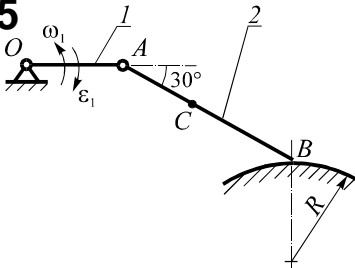
$\omega_1 = 1$ — ; $\varepsilon_1 = 4$ —₂ ; $OA = AB$;
 $BC = 60$; $R = 50$

14



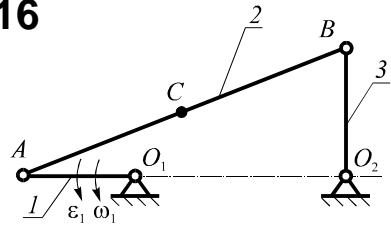
$\omega_1 = 2$ — ; $\varepsilon_1 = 3$ —₂ ; $BC = 12$;
 $O_1A = O_2E = 40$; $\varphi = 120^\circ$;
 $O_2D = DE = O_2B$

15



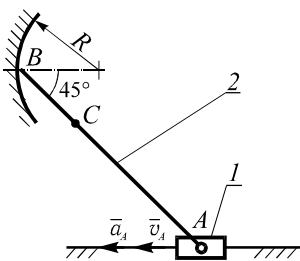
$\omega_1 = 3$ — ; $\varepsilon_1 = 6$ —₂ ; $OA = 15$;
 $AB = 25$; $BC = 15$; $R = 20$

16



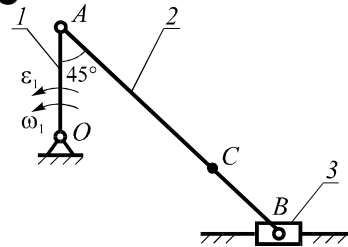
$\omega_1 = 3$ — ; $\varepsilon_1 = 7$ —₂ ; $O_1A = 15$;
 $O_2B = 20$; $O_2A = 40$;
 $AC = BC$

17



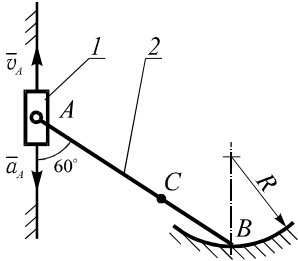
$v_A = 40$ — ; $a_A = 25$ —₂ ;
 $AB = 30$; $AC = 20$; $R = 10$

18



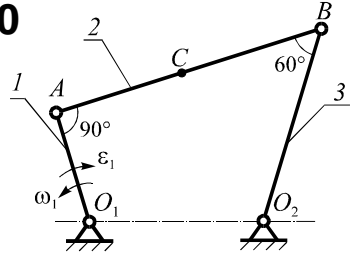
$\omega_1 = 2$ — ; $\varepsilon_1 = 2$ —₂ ; $OA = 12$;
 $AB = 30$; $BC = 10$

19



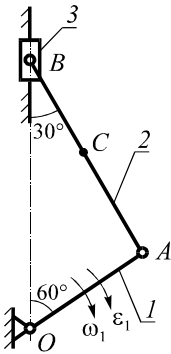
$v_A = 10$ — ; $a_A = 15$ —₂ ; $AB = 15$;
 $BC = 5$; $R = 8$

20



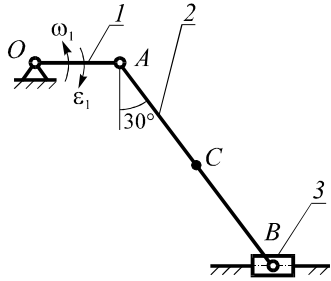
$\omega_1 = 1$ — ; $\epsilon_1 = 1$ —₂ ; $O_1A = 30$;
 $O_2B = 50$; $AB = 70$; $AC = BC$

21



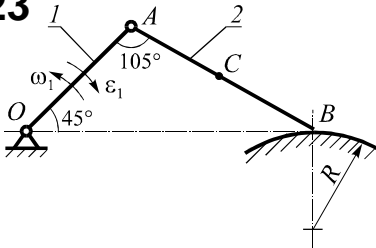
$\omega_1 = 2$ — ; $\epsilon_1 = 1$ —₂ ; $OA = 20$;
 $BC = 15$

22



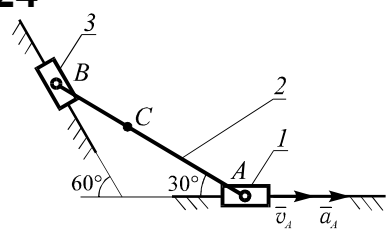
$\omega_1 = 4$ — ; $\epsilon_1 = 6$ —₂ ; $OA = 10$;
 $AB = 30$; $BC = 15$

23



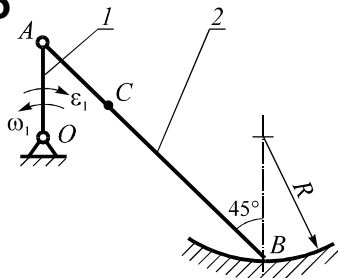
$\omega_1 = 1$ — ; $\epsilon_1 = 2$ —₂ ; $OA = 25$;
 $AC = BC$; $R = 15$

24



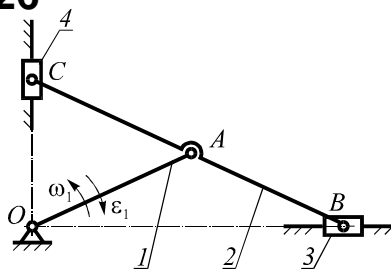
$v_A = 30$ — ; $a_A = 10$ —₂ ; $AB = 25$;
 $AC = 15$

25



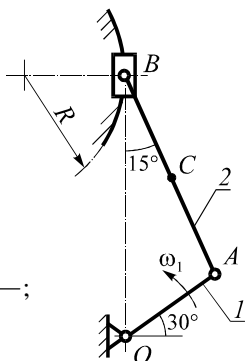
$\omega_1 = 2$ — ; $\varepsilon_1 = 5$ —₂ ; $AB = 35$;
 $OA = AC = 10$; $R = 20$

26



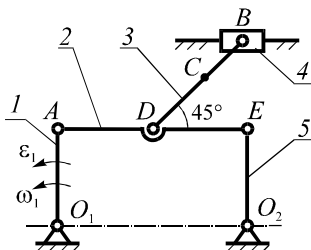
$\omega_1 = 2$ — ; $\varepsilon_1 = 3$ —₂ ; $OC = 20$;
 $OA = AB = AC = 25$

27



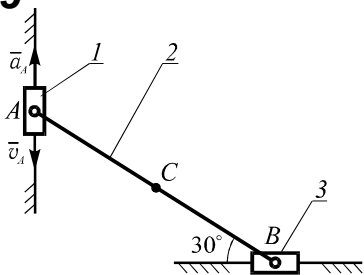
$\omega_1 = 3$ — ;
 $\varepsilon_1 = 0$;
 $OA = 15$; $AC = BC$; $R = 20$

28



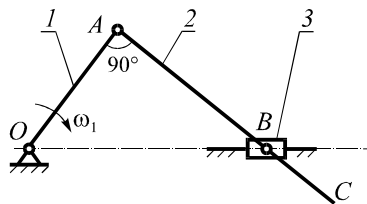
$\omega_1 = 2$ — ; $\varepsilon_1 = 4$ —₂ ; $BC = 8$;
 $O_1A = O_2E = 15$; $BD = 20$

29

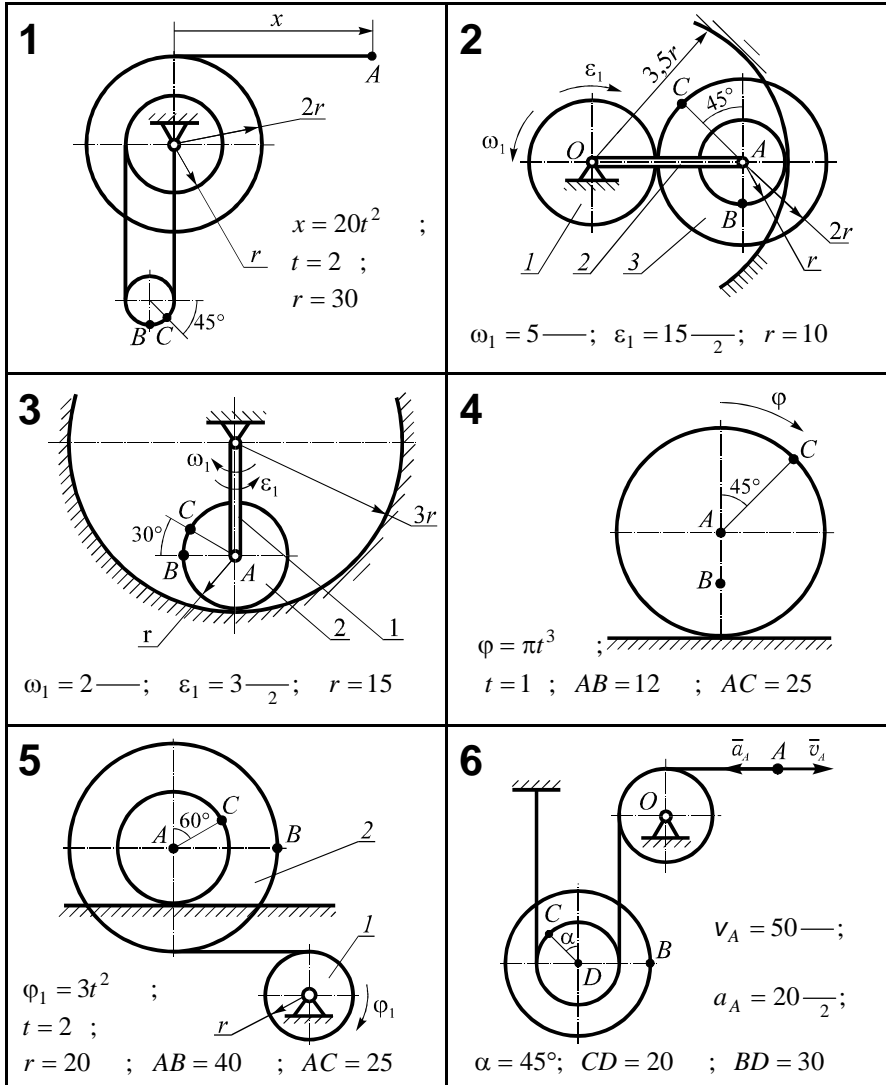


$v_A = 40$ — ; $a_A = 20$ —₂ ;
 $AB = 30$; $AC = BC$

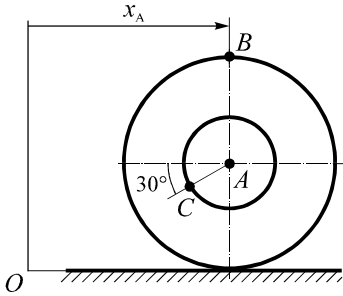
30



$\omega_1 = 2$ — ; $\varepsilon_1 = 0$; $OA = 15$;
 $AB = 20$; $BC = 10$



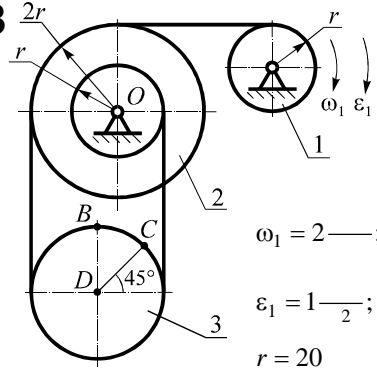
7



$$x_A = 30t - 20t^2 \quad ; \quad t = 3 \quad ;$$

$$AB = 50 \quad ; \quad AC = 20$$

8

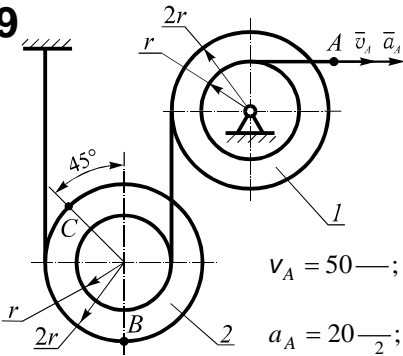


$$\omega_1 = 2 \text{ —};$$

$$\varepsilon_1 = 1 \frac{\text{—}}{2};$$

$$r = 20$$

9

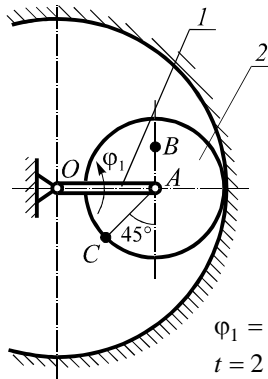


$$v_A = 50 \text{ —};$$

$$a_A = 20 \frac{\text{—}}{2};$$

$$r = 15$$

10

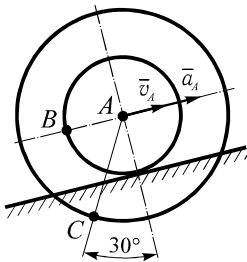


$$\varphi_1 = 3t^2 \quad ;$$

$$t = 2 \quad ;$$

$$OA = 20 \quad ; \quad AB = 10 \quad ; \quad AC = 15$$

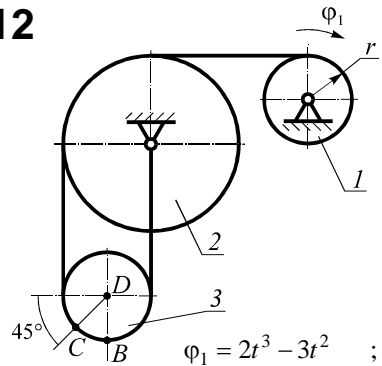
11



$$v_A = 70 \text{ —}; \quad a_A = 120 \frac{\text{—}}{2};$$

$$AB = 25 \quad ; \quad AC = 45$$

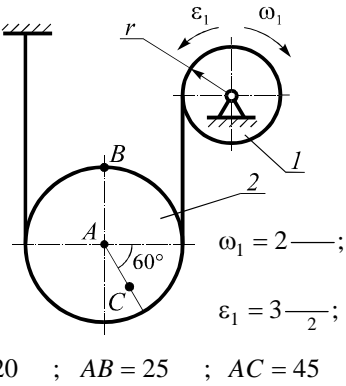
12



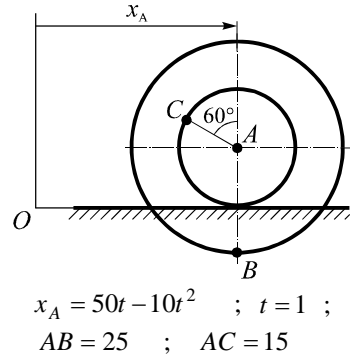
$$\varphi_1 = 2t^3 - 3t^2 \quad ;$$

$$t = 2 \quad ; \quad r = 20 \quad ; \quad CD = 15$$

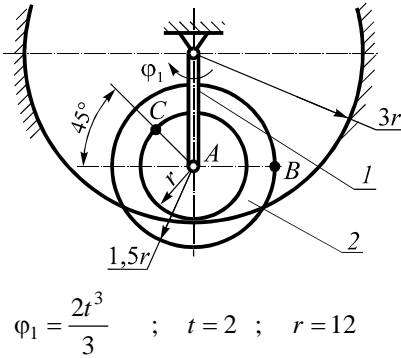
13



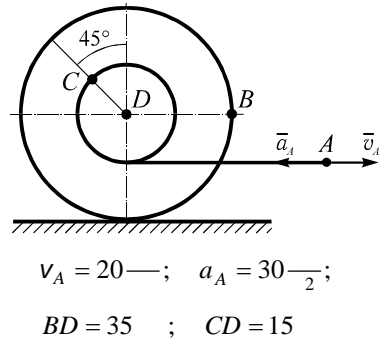
14



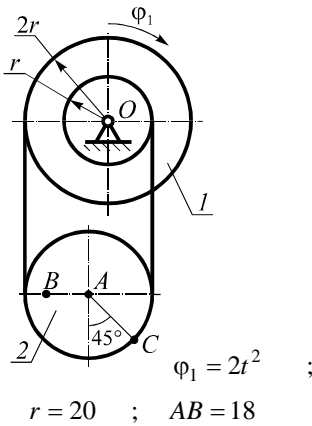
15



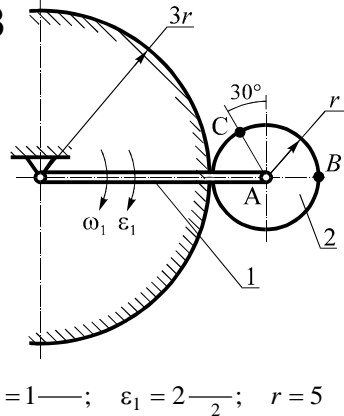
16



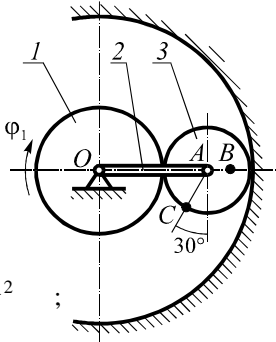
17



18

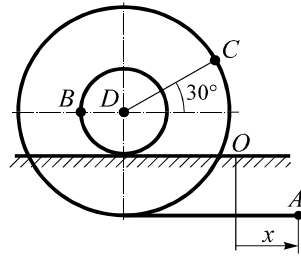


19



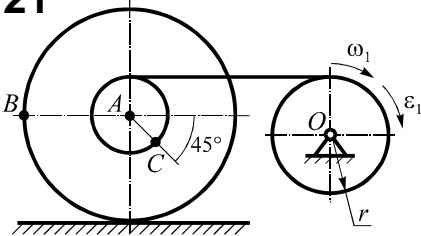
$\varphi_1 = 8t - 3t^2$;
 $t = 1$;
 $OA = 45$; $AB = 10$; $AC = 20$

20



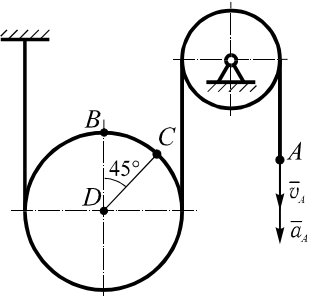
$x_A = 15t^2$; $t = 2$;
 $BD = 10$; $CD = 25$

21



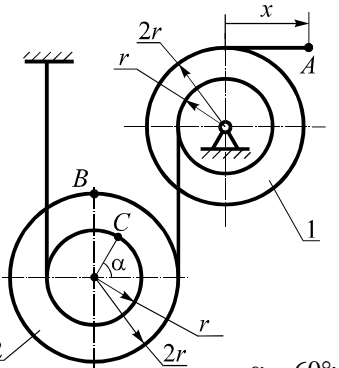
$\omega_1 = 2$; $\varepsilon_1 = 5$; $r = 10$;
 $AB = 20$; $AC = 5$

22



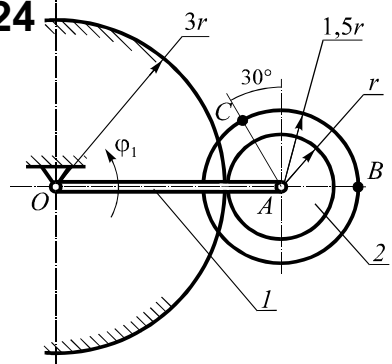
$v_A = 10$; $a_A = 5$; $BD = 20$

23



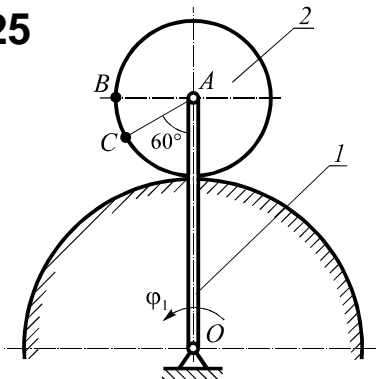
$x_A = 60t^2$; $t = 2$; $r = 15$;
 $\alpha = 60^\circ$;

24



$\varphi_1 = 0,5t^4$; $t = 1$; $r = 20$

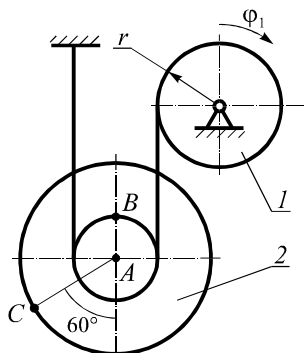
25



$$\varphi_1 = 8t - 2t^2 \quad ; \quad t = 1 \quad ;$$

$$OA = 50 \quad ; \quad AB = 15$$

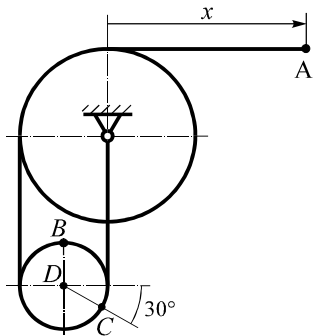
26



$$\varphi_1 = 4t^2 \quad ; \quad t = 1 \quad ; \quad r = 30 \quad ;$$

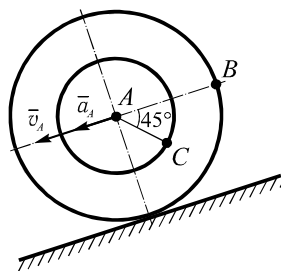
$$AB = 20 \quad ; \quad AC = 45$$

27



$$x_A = 40t^2 \quad ; \quad t = 0,5 \quad ; \quad BD = 5$$

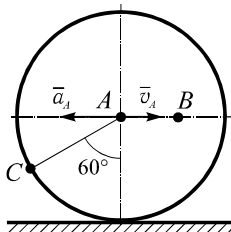
28



$$v_A = 120 \text{ —} \quad ; \quad a_A = 150 \frac{\text{—}}{2} \quad ;$$

$$AB = 55 \quad ; \quad AC = 30$$

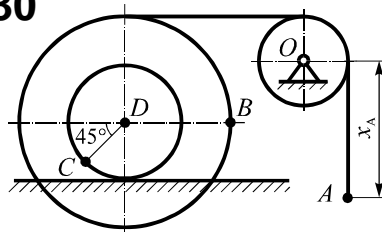
29



$$v_A = 50 \text{ —} \quad ; \quad a_A = 30 \frac{\text{—}}{2} \quad ;$$

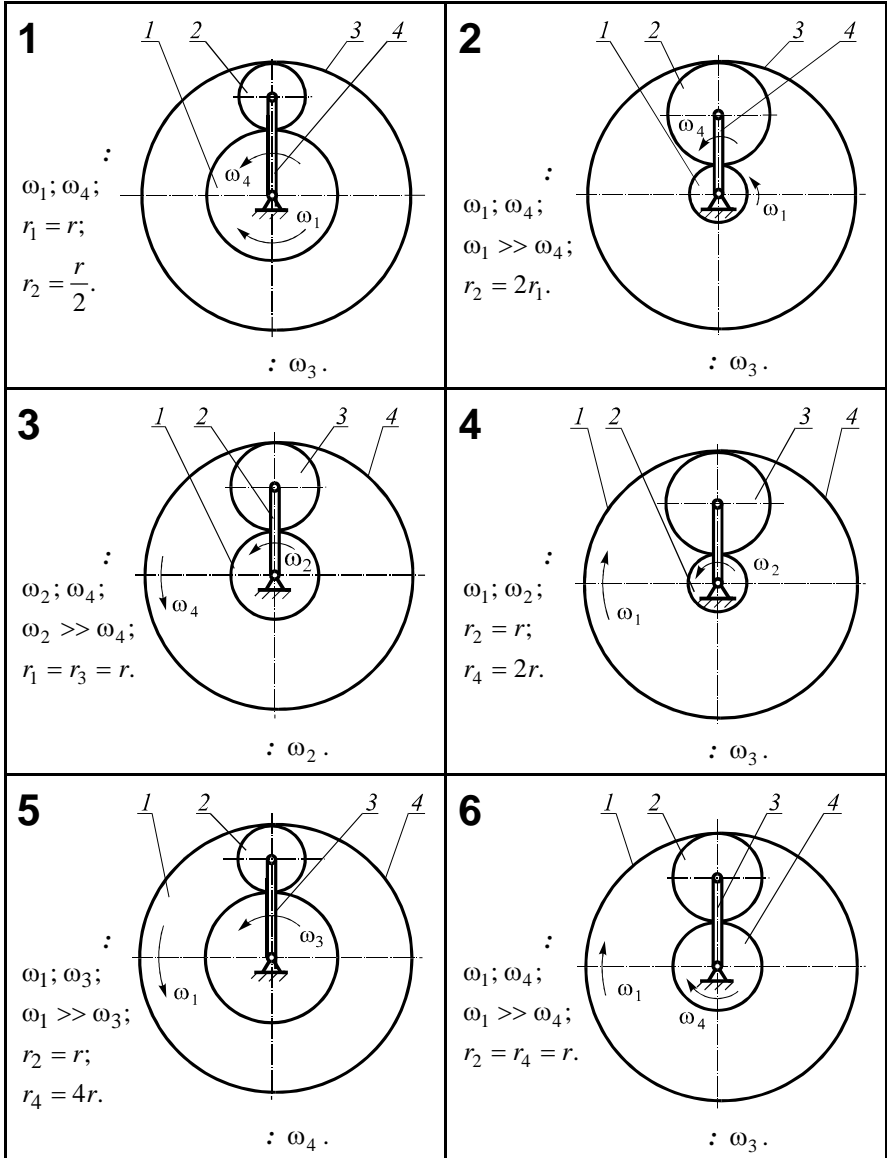
$$AB = 35 \quad ; \quad AC = 65$$

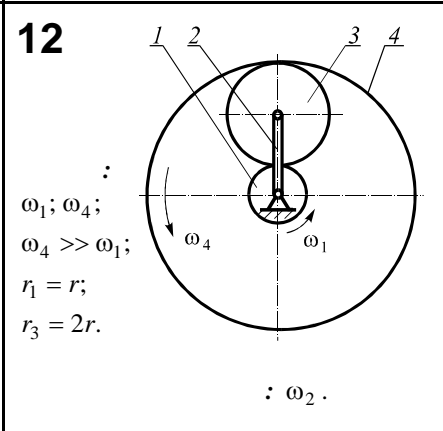
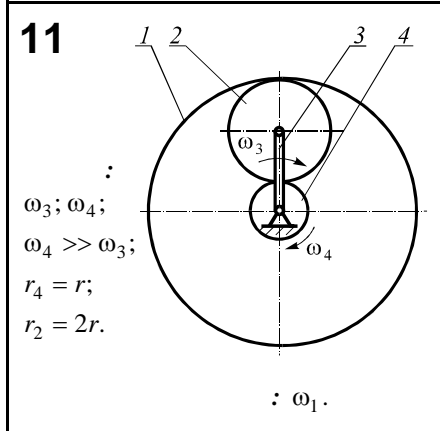
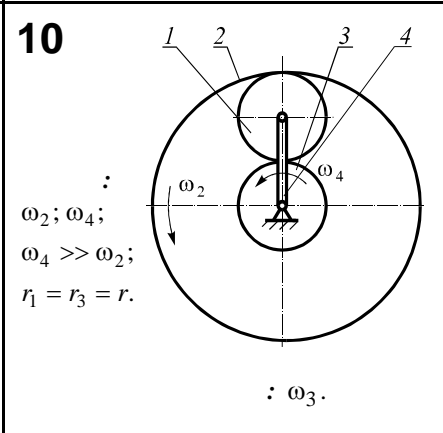
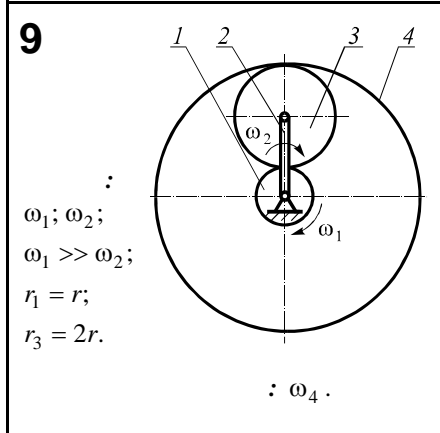
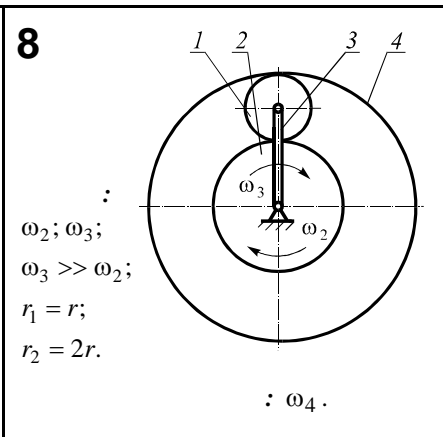
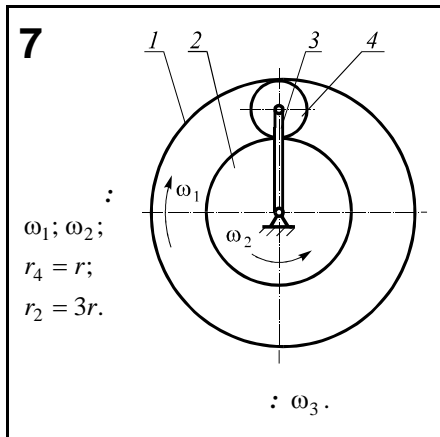
30

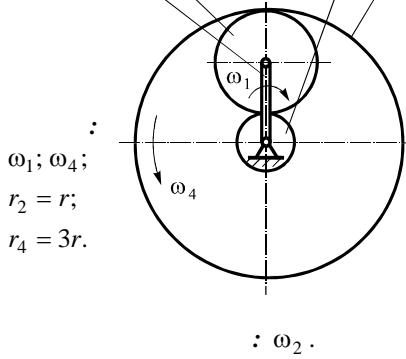
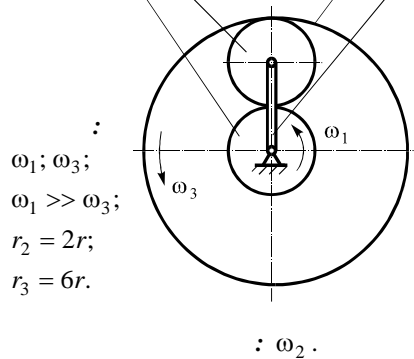
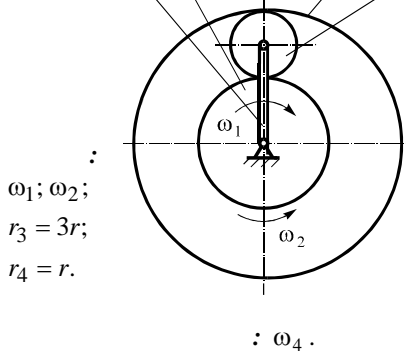
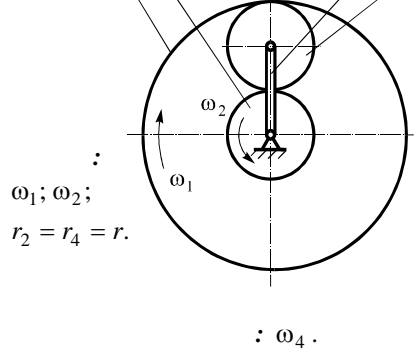
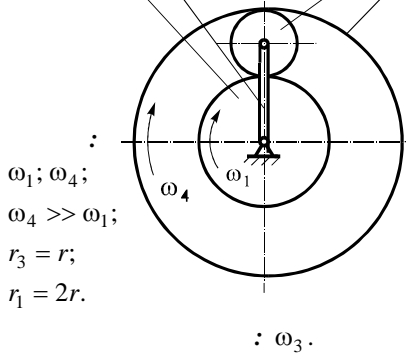
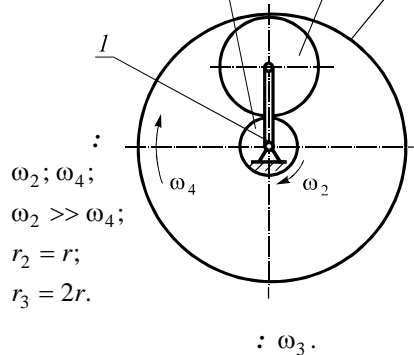


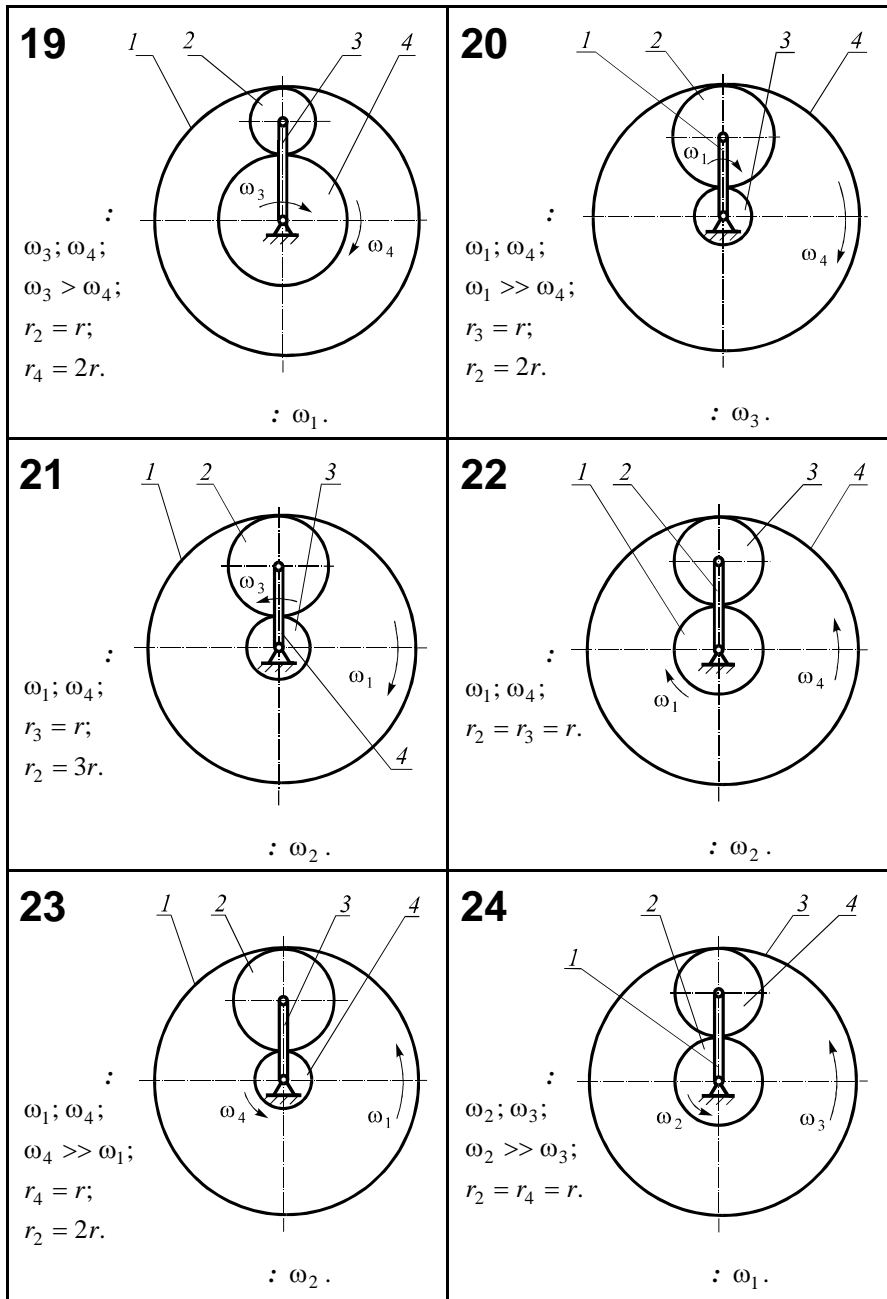
$$x_A = 120t^2 \quad ; \quad t = 3 \quad ;$$

$$BD = 50 \quad ; \quad CD = 25$$



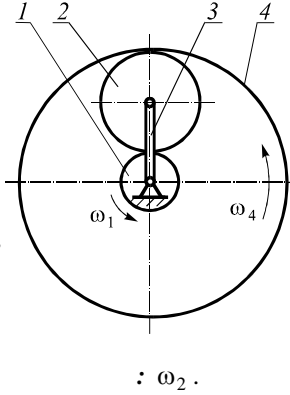


13**14****15****16****17****18**

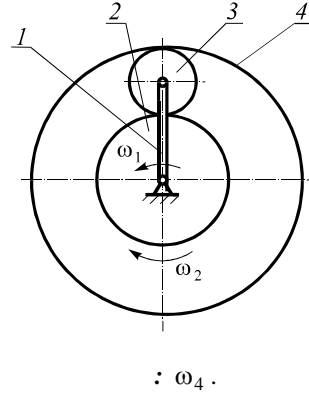


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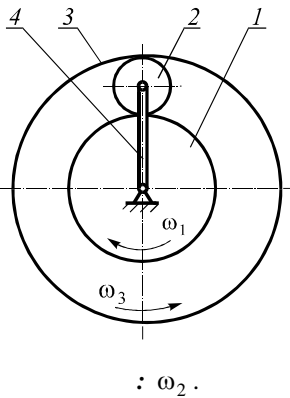
$\omega_1; \omega_4;$
 $\omega_4 \gg \omega_1;$
 $r_1 = r;$
 $r_2 = 2r.$

**26**

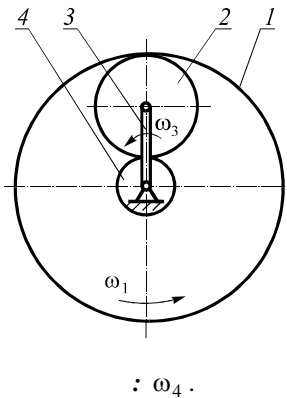
$\omega_1; \omega_2;$
 $r_3 = r;$
 $r_2 = 2r.$

**27**

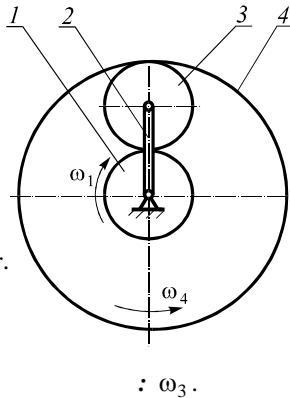
$\omega_1; \omega_3;$
 $r_2 = r;$
 $r_1 = 3r.$

**28**

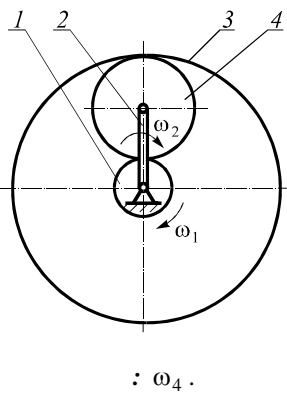
$\omega_1; \omega_3;$
 $\omega_3 \gg \omega_1;$
 $r_4 = r;$
 $r_2 = 3r.$

**29**

$\omega_1; \omega_4;$
 $r_2 = r_3 = r.$

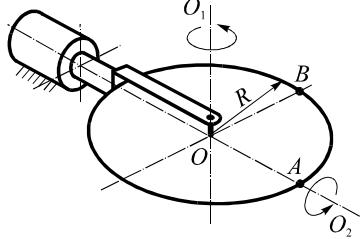
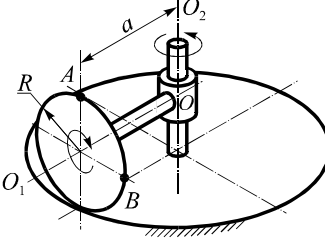
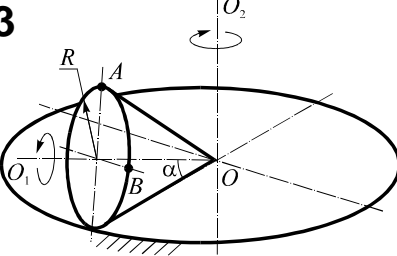
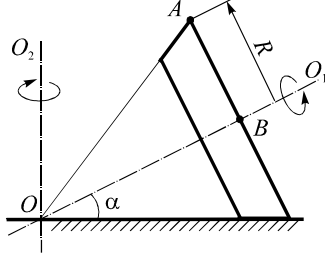
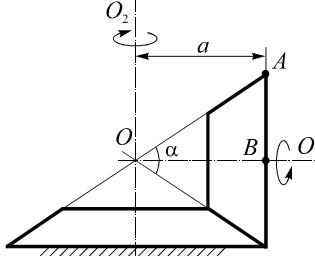
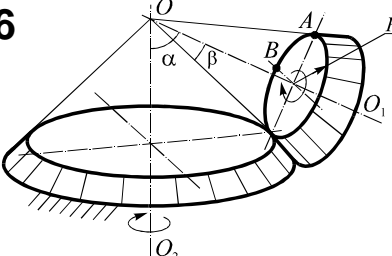
**30**

$\omega_1; \omega_2;$
 $\omega_2 \gg \omega_1;$
 $r_3 = r;$
 $r_4 = 2r.$

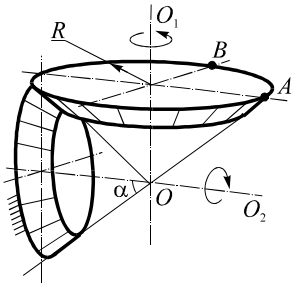


$OO_1,$
 $OO_2.$

1
 2

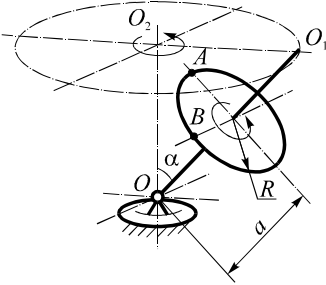
<p>1</p>  <p>: $\omega_1, \omega_2, R.$: $\omega, \varepsilon, v_A, v_B.$</p>	<p>2</p>  <p>: $\omega, a, R.$: $\omega_1, \omega_2, \varepsilon, v_A, v_B.$</p>
<p>3</p>  <p>: $\omega_2, R.$: $\omega, \omega_1, \varepsilon, v_A, v_B.$</p>	<p>4</p>  <p>: $\omega_1, R, \alpha.$: $\omega, \omega_2, \varepsilon, v_A, v_B.$</p>
<p>5</p>  <p>: $\omega, a, \alpha.$: $\omega_1, \omega_2, \varepsilon, v_A, v_B.$</p>	<p>6</p>  <p>: $\omega, \omega_1, R, \alpha, \beta.$: $\omega_2, \varepsilon, v_A, v_B.$</p>

7



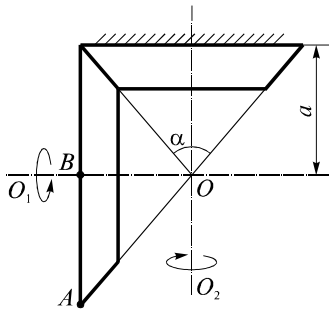
: ω , R , α .
 : $\omega_1, \omega_2, \varepsilon$, v_A, v_B .

8



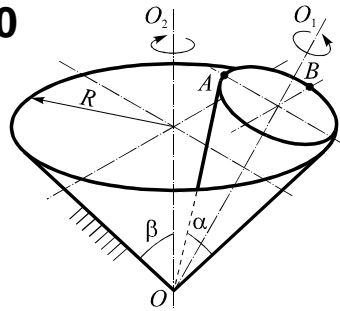
: $\omega_1, \omega_2, a, R, \alpha$.
 : ω , ε , v_A, v_B .

9



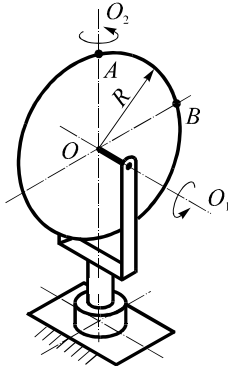
: ω , a, α .
 : $\omega_1, \omega_2, \varepsilon$, v_A, v_B .

10



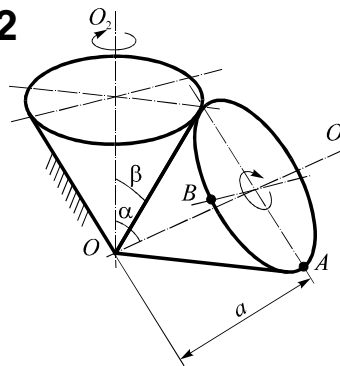
: $\omega_1, \omega_2, a, \alpha, \beta$.
 : ω , ε , v_A, v_B .

11



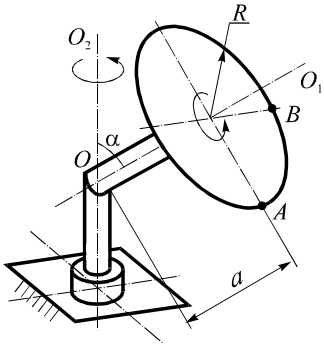
: ω_1, ω_2, R .
 : ω , ε , v_A, v_B .

12



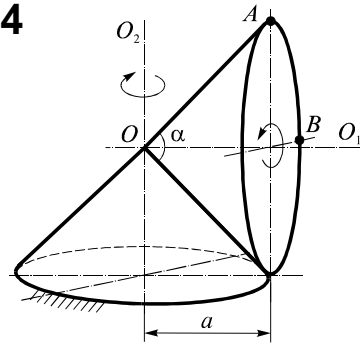
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 : ω , ε , v_A, v_B .

13



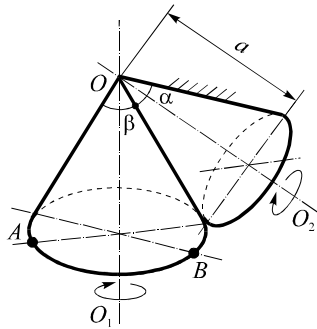
: $\omega_1, \omega_2, a, \alpha.$
 : $\omega, \varepsilon, V_A, V_B.$

14



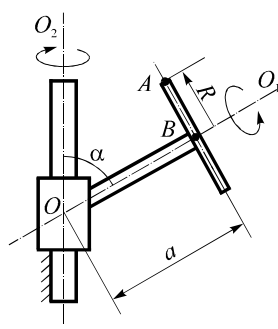
: $\omega_1, a, \alpha.$
 : $\omega, \omega_2, \varepsilon, V_A, V_B.$

15



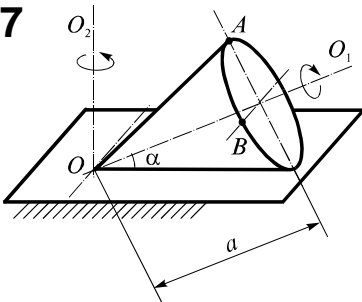
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 : $\omega, \varepsilon, V_A, V_B.$

16



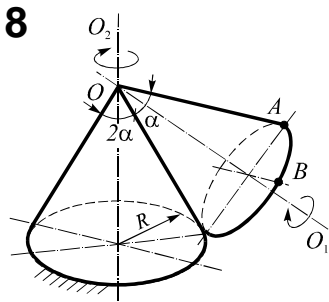
: $\omega_1, \omega_2, a, R, \alpha.$
 : $\omega, \varepsilon, V_A, V_B.$

17



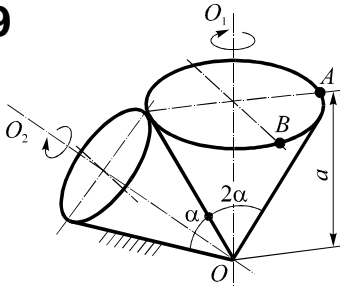
: $\omega, a, \alpha.$
 : $\omega_1, \omega_2, \varepsilon, V_A, V_B.$

18



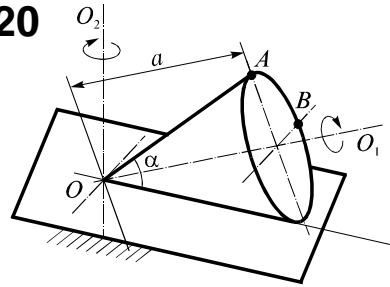
: $\omega_1, R, \alpha.$
 : $\omega, \omega_2, \varepsilon, V_A, V_B.$

19



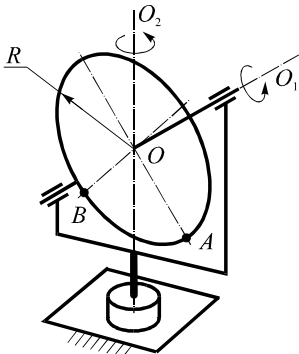
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 : $\omega, \varepsilon, V_A, V_B.$

20



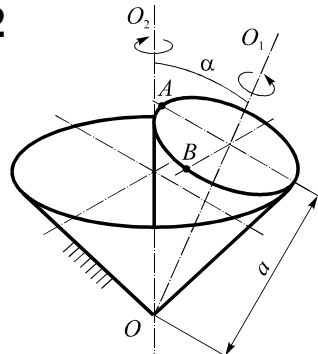
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 : $\omega_1, \omega_2, \varepsilon, V_A, V_B.$

21



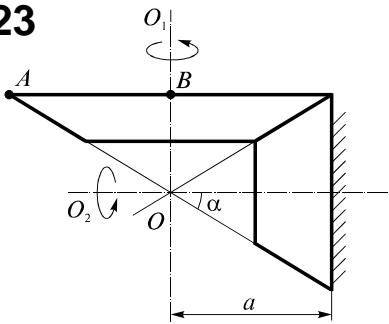
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 : $\omega, \varepsilon, V_A, V_B.$

22



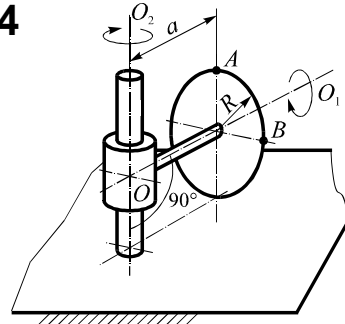
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 : $\omega, \varepsilon, V_A, V_B.$

23



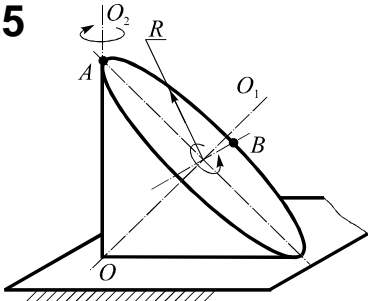
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 : $\omega, \omega_1, \varepsilon, V_A, V_B.$

24



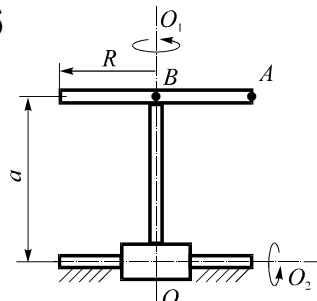
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 : $\omega_1, \omega_2, \varepsilon, V_A, V_B.$

25



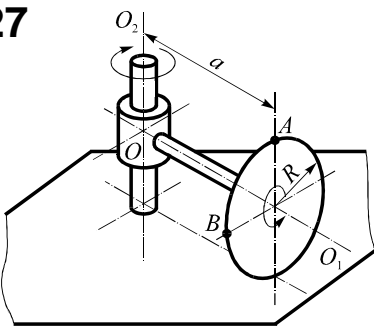
: ω , R .
: $\omega_1, \omega_2, \varepsilon$, v_A, v_B .

26



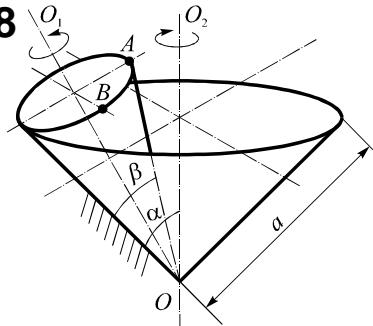
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: ω , ε , v_A, v_B .

27



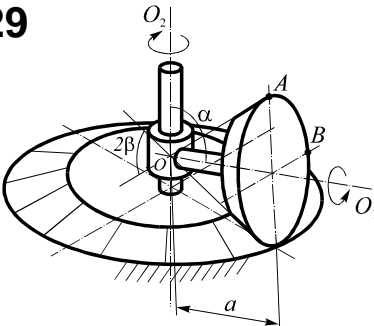
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: ω , ω_1, ε , v_A, v_B .

28



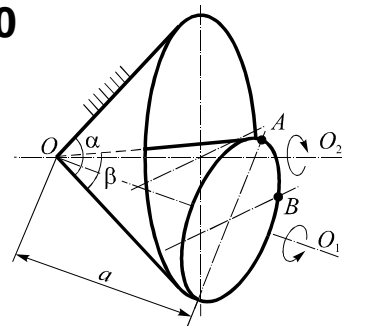
: $\omega_1, \omega_2, a, \alpha$.
: ω , ε , v_A, v_B .

29



: $\omega_1, \omega_2, a, \alpha, \beta$.
: ω , ε , v_A, v_B .

30



: $\omega_1, \omega_2, R, \alpha, \beta$.
: ω , ε , v_A, v_B .

1. . . . , , 1985.— 240 .
2. — , 1995.— 416 .
3. : . 1. — , 1990.— 670 .

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21.01.98 $60 \times 84 \frac{1}{16}$ 1.

“ ” 4,19. 4,47.

200

- , 246653, , 34.

57 22.10.97

, 246022, , 34.

75 12.03.93