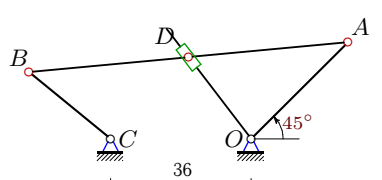
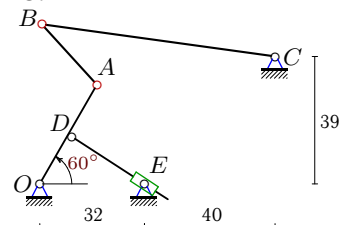
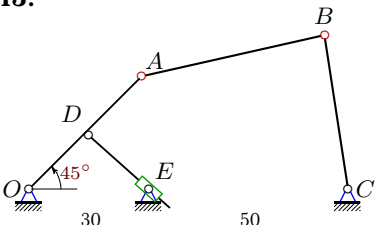
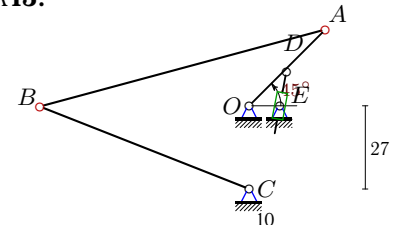
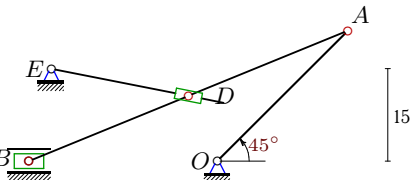
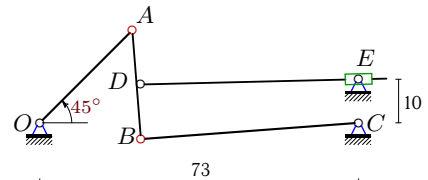
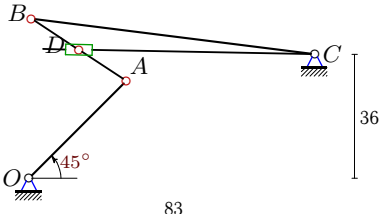
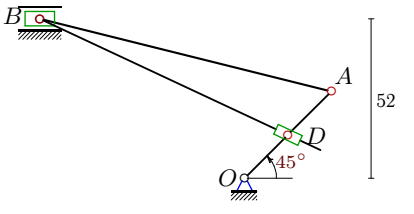


Механизм с муфтой

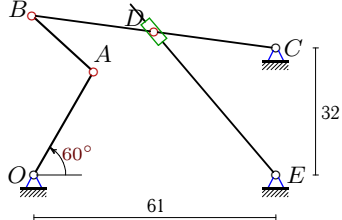
Плоский механизм с одной степенью свободы состоит из шарнирно соединенных стержней и муфты, скользящей по направляющему стержню и шарнирно закрепленной на другом стержне или вращающейся на неподвижном шарнире. Кривошип OA вращается против часовой стрелки с постоянной угловой скоростью ω_{OA} . Горизонтальные и вертикальные размеры на рисунках даны для неподвижных шарниров и для линий движения ползунков (в см). Найти скорость муфты D (или E) относительно направляющего стержня (в см/с).

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<p>Вариант 1 К13.</p>  <p>$\omega_{OA} = 1\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 35$, $AB = 82$, $BC = 27$, $AD = AB/2$.</p>	<p>Вариант 2 К13.</p>  <p>$\omega_{OA} = 2\frac{1}{c}$, $\alpha = 60^\circ$, $OA = 35$, $AB = 25$, $BC = 72$, $OD = OA/2$.</p>
<p>Вариант 3 К13.</p>  <p>$\omega_{OA} = 3\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 40$, $AB = 47$, $BC = 39$, $OD = OA/2$.</p>	<p>Вариант 4 К13.</p>  <p>$\omega_{OA} = 4\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 35$, $AB = 96$, $BC = 73$, $OD = OA/2$.</p>
<p>Вариант 5 К13.</p>  <p>$\omega_{OA} = 5\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 30$, $AB = 56$, $AD = AB/2$.</p>	<p>Вариант 6 К13.</p>  <p>$\omega_{OA} = 6\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 30$, $AB = 25$, $BC = 50$, $AD = AB/2$.</p>
<p>Вариант 7 К13.</p>  <p>$\omega_{OA} = 7\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 40$, $AB = 33$, $BC = 83$, $AD = AB/2$.</p>	<p>Вариант 8 К13.</p>  <p>$\omega_{OA} = 8\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 40$, $AB = 98$, $OD = OA/2$.</p>

Вариант 9

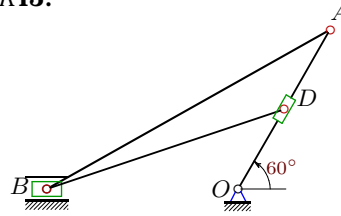
K13.



$\omega_{OA} = 9\frac{1}{c}$, $\alpha = 60^\circ$, $OA = 30$,
 $AB = 21$, $BC = 62$, $BD=BC/2$.

Вариант 10

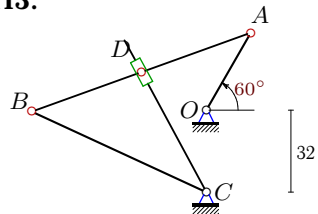
K13.



$\omega_{OA} = 10\frac{1}{c}$, $\alpha = 60^\circ$, $OA = 30$,
 $AB = 53$, $OD=OA/2$.

Вариант 11

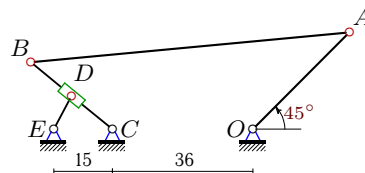
K13.



$\omega_{OA} = 11\frac{1}{c}$, $\alpha = 60^\circ$, $OA = 35$,
 $AB = 91$, $BC = 75$, $AD=AB/2$.

Вариант 12

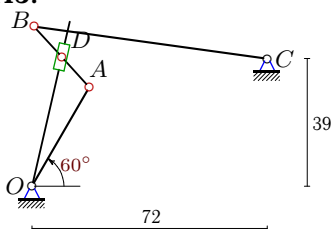
K13.



$\omega_{OA} = 12\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 35$,
 $AB = 82$, $BC = 27$, $BD=BC/2$.

Вариант 13

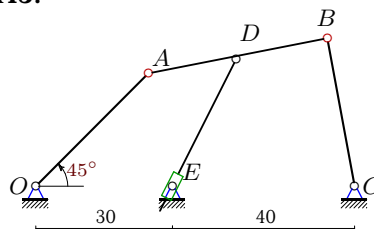
K13.



$\omega_{OA} = 13\frac{1}{c}$, $\alpha = 60^\circ$, $OA = 35$,
 $AB = 25$, $BC = 72$, $AD=AB/2$.

Вариант 14

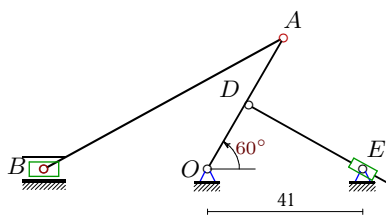
K13.



$\omega_{OA} = 14\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 35$,
 $AB = 40$, $BC = 33$, $AD=AB/2$.

Вариант 15

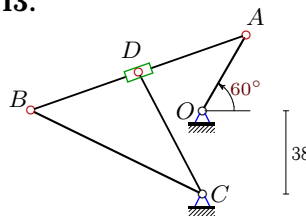
K13.



$\omega_{OA} = 15\frac{1}{c}$, $\alpha = 60^\circ$, $OA = 40$,
 $AB = 72$, $OD=OA/2$.

Вариант 16

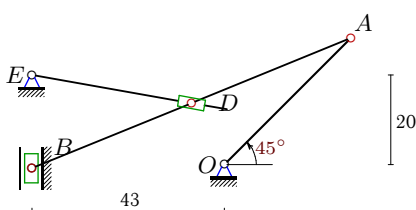
K13.



$\omega_{OA} = 16\frac{1}{c}$, $\alpha = 60^\circ$, $OA = 40$,
 $AB = 104$, $BC = 87$, $AD=AB/2$.

Вариант 17

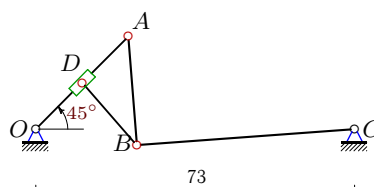
K13.



$\omega_{OA} = 17\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 40$,
 $AB = 77$, $AD=AB/2$.

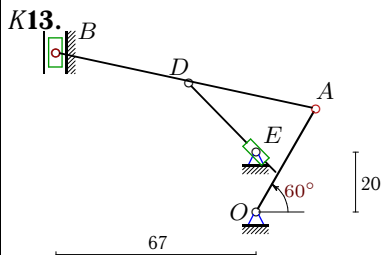
Вариант 18

K13.



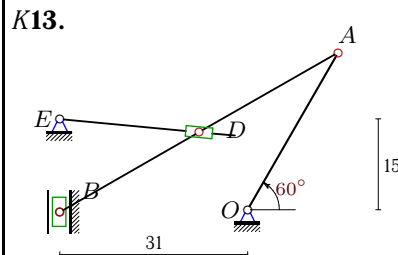
$\omega_{OA} = 18\frac{1}{c}$, $\alpha = 45^\circ$, $OA = 30$,
 $AB = 25$, $BC = 50$, $OD=OA/2$.

Вариант 19



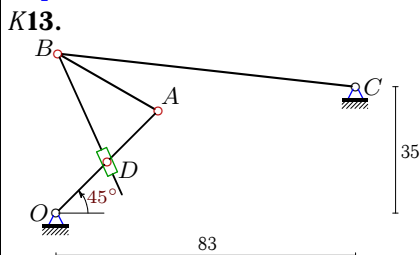
$\omega_{OA} = 19\frac{1}{6}$, $\alpha = 60^\circ$, $OA = 40$,
 $AB = 89$, $AD = AB/2$.

Вариант 20



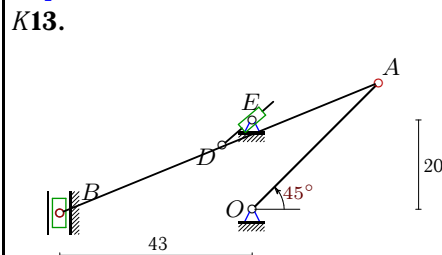
$\omega_{OA} = 20\frac{1}{6}$, $\alpha = 60^\circ$, $OA = 30$,
 $AB = 53$, $AD = AB/2$.

Вариант 21



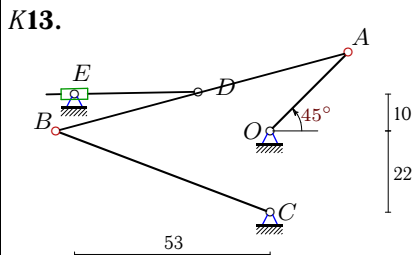
$\omega_{OA} = 21\frac{1}{6}$, $\alpha = 45^\circ$, $OA = 40$,
 $AB = 32$, $BC = 83$, $OD = OA/2$.

Вариант 22



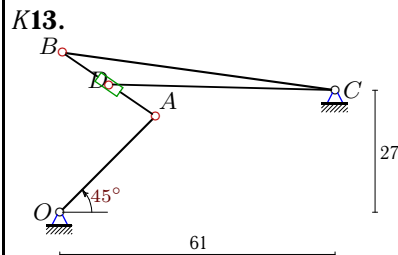
$\omega_{OA} = 22\frac{1}{6}$, $\alpha = 45^\circ$, $OA = 40$,
 $AB = 77$, $AD = AB/2$.

Вариант 23



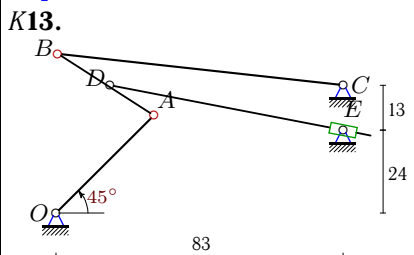
$\omega_{OA} = 23\frac{1}{6}$, $\alpha = 45^\circ$, $OA = 30$,
 $AB = 82$, $BC = 62$, $AD = AB/2$.

Вариант 24



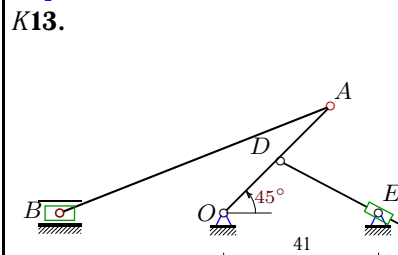
$\omega_{OA} = 24\frac{1}{6}$, $\alpha = 45^\circ$, $OA = 30$,
 $AB = 25$, $BC = 61$, $AD = AB/2$.

Вариант 25



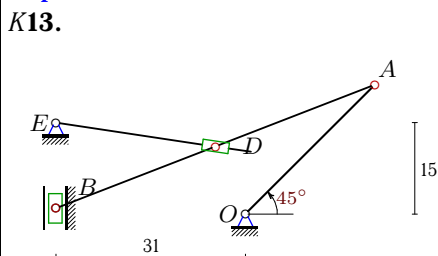
$\omega_{OA} = 25\frac{1}{6}$, $\alpha = 45^\circ$, $OA = 40$,
 $AB = 33$, $BC = 83$, $AD = AB/2$.

Вариант 26



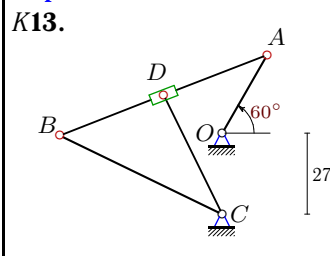
$\omega_{OA} = 26\frac{1}{6}$, $\alpha = 45^\circ$, $OA = 40$,
 $AB = 77$, $OD = OA/2$.

Вариант 27



$\omega_{OA} = 27\frac{1}{6}$, $\alpha = 45^\circ$, $OA = 30$,
 $AB = 56$, $AD = AB/2$.

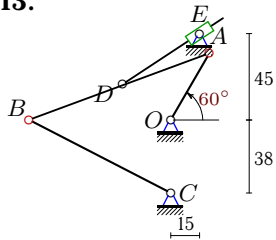
Вариант 28



$\omega_{OA} = 28\frac{1}{6}$, $\alpha = 60^\circ$, $OA = 30$,
 $AB = 74$, $BC = 60$, $AD = AB/2$.

Вариант 29

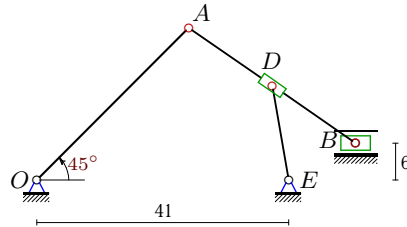
K13.



$\omega_{OA} = 29 \frac{1}{c}$, $\alpha = 60^\circ$, $OA = 40$,
 $AB = 100$, $BC = 83$, $AD = AB/2$.

Вариант 30

K13.



$\omega_{OA} = 30 \frac{1}{c}$, $\alpha = 45^\circ$, $OA = 35$,
 $AB = 33$, $AD = AB/2$.

Ответы

	v_A	v_B	v_D	v_r	x_B	y_B
1	35	31.7774	22.4380	-13.7306	-56.894	17.101
2	70	104.0493	35.0000	-34.9488	0.670	48.797
3	120	64.4086	60.0000	-59.9021	74.148	38.558
4	140	117.0584	70.0000	-39.2834	-67.932	-0.276
5	150	62.6520	99.6441	93.0192	-30.613	0.000
6	180	136.7015	148.6385	-65.4542	23.138	-3.713
7	280	625.5939	413.7625	-67.8753	0.643	46.311
8	320	282.7093	160.0000	-105.6718	-66.803	52.000
9	270	459.2436	229.6218	-153.6385	-0.456	40.198
10	300	175.4458	150.0000	89.4363	-31.195	0.000
11	385	353.5434	249.2055	-57.8288	-68.099	-0.574
12	420	381.3293	190.6646	957.2617	-56.894	17.101
13	455	676.3207	473.4905	-403.5734	0.670	48.797
14	490	273.3071	341.5405	5.5551	64.000	32.450
15	600	354.9689	300.0000	-299.9703	-43.119	0.000
16	640	586.0363	418.8326	668.3145	-78.146	0.240
17	680	696.5138	263.4950	218.0881	-43.000	-0.828
18	540	410.1045	270.0000	-879.2211	23.138	-3.713
19	760	3432.0535	1934.2280	-1592.6147	-67.000	53.403
20	600	607.9733	302.0131	244.1054	-31.000	-0.344
21	840	2038.5539	420.0000	-1358.5368	0.509	44.175
22	880	901.3709	340.9935	-327.3099	-43.000	-0.828
23	690	589.8314	349.8332	348.8672	-57.983	-0.046
24	720	1585.6961	1050.2760	205.6282	0.569	35.314
25	1000	2199.7565	1465.4786	-502.0051	0.499	46.088
26	1040	444.9574	520.0000	-496.6622	-43.333	0.000
27	810	904.5624	330.9627	258.6590	-31.000	0.970
28	840	718.0786	532.5964	1477.2933	-53.981	-0.808
29	1160	1005.2346	748.9072	-697.4439	-73.801	-0.020
30	1050	1255.0517	1065.5177	-766.1131	51.905	6.000