



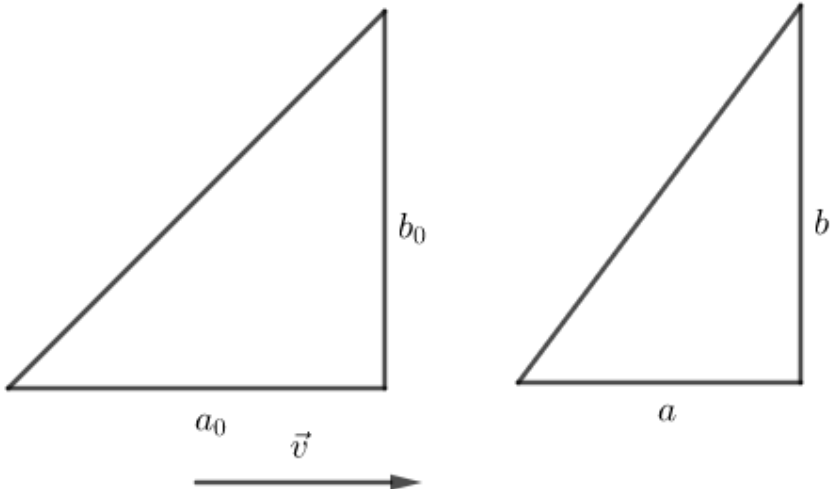
RJEŠENJA ISPITA DRŽAVNE MATURE IZ **FIZIKE**  
U ŠKOLSKOJ GODINI 2020./2021. (ljetni rok)

BROJ ZADATKA	TOČAN ODGOVOR
1.	B
2.	D
3.	D
4.	A
5.	A
6.	D
7.	C
8.	A
9.	D
10.	C
11.	C
12.	D
13.	B
14.	A
15.	B
16.	B
17.	B
18.	C
19.	C
20.	B
21.	A
22.	A
23.	D
24.	A
25.	A
26.	$v^2 = v_0^2 + 2as$ 1 bod $v = 14 \frac{\text{m}}{\text{s}}$ 1 bod
27.	$pV = NkT$ 1 bod $N = 1,59 \cdot 10^{24}$ 1 bod
28.	$\varphi = \frac{kQ}{r}$ 1 bod $\varphi = 24 \text{ V}$ 1 bod



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29.	$v = \frac{2\pi A}{T}$	1bod
	$v = 4,19 \frac{\text{m}}{\text{s}}$	1 bod
30.	$W_i = hf_{gr}$	1 bod
	$f_{gr} = 9,66 \cdot 10^{14} \text{ Hz}$	1 bod
31.	$F_{tr} = F_{\parallel}$	1 bod
	$F_{\parallel} = F \cos \alpha$	1 bod
	$F_{tr} = 8,66 \text{ N}$	1 bod
32.	$P = \frac{W}{t} = \frac{Q}{t}$	1 bod
	$Q = mr$	1 bod
	$P = 156,94 \text{ W}$	1 bod
33.	$E = \frac{kQ}{r^2}$	1 bod
	$r_2 = r + r_1$	1 bod
	$r_1 = 108,64 \text{ cm}$	1 bod
34.	$E_{gp} = mgh$	1 bod
	$E_k = \frac{mv^2}{2}$	1 bod
	$W = E_{gp} + E_{k_0} - E_k$	1 bod
	$W = 4250 \text{ J}$	1 bod
35.	$R_{uk} = R + \frac{1}{\frac{1}{R} + \frac{1}{R}}$	1 bod
	$I = \frac{U}{R_{uk}}$	1 bod
	$P = I^2 R$	1 bod
	$P = 32 \text{ W}$	1 bod



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36.	$\frac{I_1}{I_2} = \left(\frac{r_2}{r_1}\right)^2$	1 bod
	$I_2 = 8,4 \cdot 10^{-10} \frac{\text{W}}{\text{m}^2}$	1 bod
	$I = \frac{P}{S}$	1 bod
	$P = 1,48 \cdot 10^{-7} \text{ W}$	1 bod
37.		
	$b = b_0$	1 bod
	$a = a_0 \sqrt{1 - \frac{v^2}{c^2}}$	1 bod
	$P = \frac{b_0 a_0 \sqrt{1 - \frac{v^2}{c^2}}}{2}$	1 bod
	$P = 1,3 \text{ cm}^2$	1 bod