

## پاسخنامه مسائل مزیت مکانیکی

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$$E \cdot L_E = R \cdot L_R \Rightarrow E \times 6 = 400 \times 3 \Rightarrow E = \frac{1200}{6} = 200 \text{ N}$$

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$$E \cdot L_E = R \cdot L_R \Rightarrow 45 \times 30 = 9 \times L_R \Rightarrow L_R = \frac{1350}{9} = 150 \text{ Cm}$$

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$$E \cdot L_E = R \cdot L_R \Rightarrow 120 \times 3 = 500 \times L_R \Rightarrow L_R = \frac{360}{500} = 0.72 \text{ m}$$

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$$A = \frac{L_E}{L_R} \Rightarrow A = \frac{75}{25} = 3$$

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$$A = \frac{L_E}{L_R} \Rightarrow A = \frac{150}{50} = 3$$

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$$A = \frac{R}{E} \Rightarrow 18 = \frac{30}{E} \Rightarrow E = \frac{30}{18} = 1/6$$

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$$E \cdot d_E = R \cdot d_R$$

$$\text{الف - } E \cdot d_E \Rightarrow 100 \times 0.2 = 20 \text{ J}$$

$$\text{ب - } 20 = R \cdot d_R \Rightarrow 20 = 400 \times d_R \Rightarrow d_R = \frac{20}{400} = 0.05 \text{ m}$$

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$$\text{الف - } A = \frac{R}{E} \Rightarrow A = \frac{150}{50} = 3$$

$$E \cdot d_E = R \cdot d_R$$

$$\text{ب - } E \cdot d_E \Rightarrow 50 \times 0.06 = 30 \text{ J}$$

$$\text{پ - } 30 = R \cdot d_R \Rightarrow 20 = 150 \times d_R \Rightarrow d_R = \frac{30}{150} = 0.2 \text{ m}$$

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$$E \cdot d_E = R \cdot d_R \Rightarrow 125 \times d_E = 750 \times 40 \Rightarrow d_E = \frac{30000}{125} = 240 \text{ m}$$

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$$E \cdot d_E = R \cdot d_R \Rightarrow 45 \times 8 = R \times 3 \Rightarrow R = \frac{360}{3} = 120 \text{ N} \Rightarrow \frac{120}{10} = 12 \text{ Kg}$$

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$$\text{وتر} = 3^2 + 4^2 = 9 + 16 = 25 = \sqrt{25} = 5$$

$$A = \frac{d_E}{d_R} \Rightarrow A = \frac{5}{4} = 1.25$$

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$$\frac{32}{8} = 4 \times 3 = 12 \text{ دور}$$