

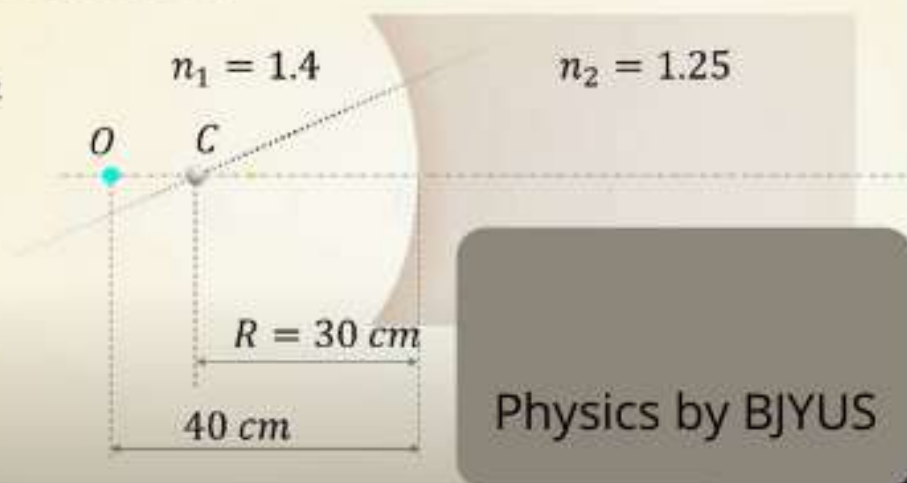
For the spherical interface shown in the figure, the two different media with refractive indices  $n_1 = 1.4$  and  $n_2 = 1.25$  are present as shown. The image will be formed at

(a)  $-\frac{125}{3} \text{ cm}$

(b)  $-\frac{50}{6} \text{ cm}$

(c)  $-\frac{25}{2} \text{ cm}$

(d)  $-20 \text{ cm}$



Physics by BJKUS

Four moles of a diatomic gas is heated from  $0^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ . Find the heat supplied to the gas if work done by it is zero

- (a)  $780 R$
- (b)  $500 R$
- (c)  $100 R$
- (d)  $650 R$

Physics by BJYUS

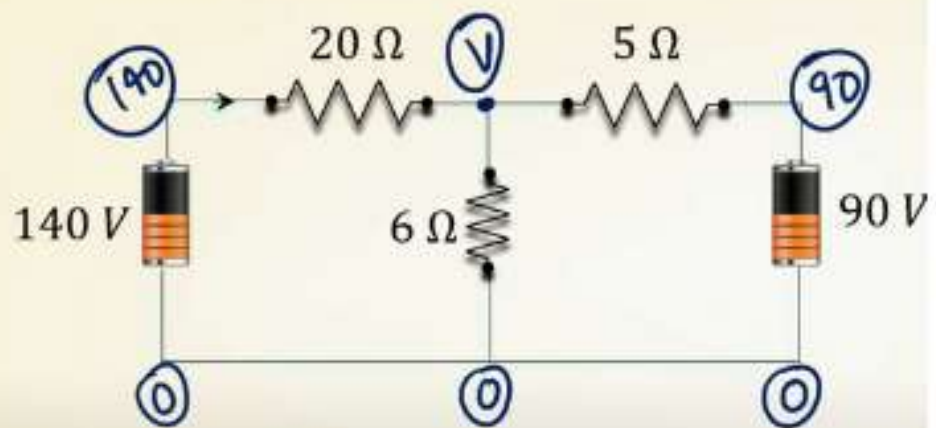
In the given circuit, find the current through  $6\ \Omega$  resistance.

(a)  $18\ A$

(b)  $7\ A$

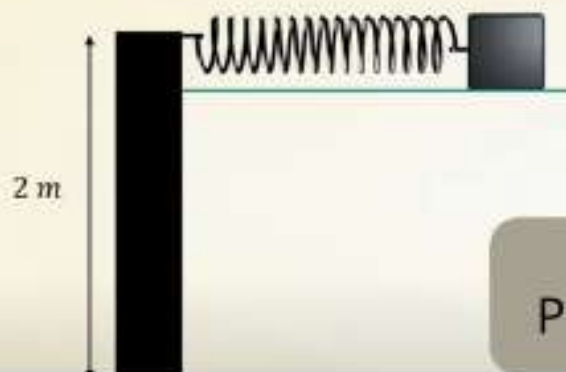
(c)  $25\ A$

(d)  $30\ A$



A spring of force constant  $k = 100 \text{ N/m}$  is compressed to  $x = 0.05 \text{ m}$  by a block of mass  $1 \text{ kg}$  and released. Find the distance  $d$  where it falls

- (a)  $\frac{5}{\sqrt{10}} \text{ m}$
- (b)  $5\sqrt{10} \text{ m}$
- (c)  $10\sqrt{10} \text{ m}$
- (d)  $\frac{1}{\sqrt{10}} \text{ m}$



Physics by BYJU's

Consider the P-V diagram given below for a cyclic process. Find the net heat supplied to the system during the process.

- (a)  $0.625\pi \text{ J}$
- (b)  $0.25\pi \text{ J}$
- (c)  $0.1\pi \text{ J}$

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