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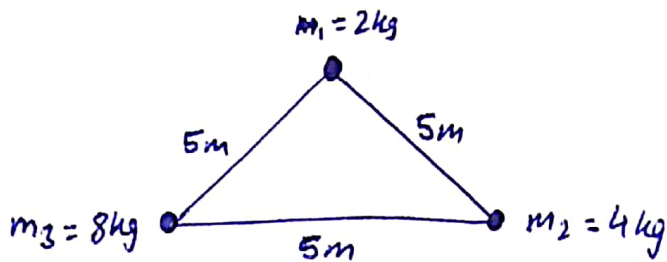
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Phy107

Section: 1

Quiz 3

1)



a) $F_{\text{net}} = m \times a$

$$= (2 \times \cos 30 \times 9.8) + 4 \times 9.8$$

$$F_{\text{net}} = 56.2\text{ N}$$

b) ~~8 kg~~ $F_{\text{net}} = m \times a$

$$= (2 \times \cos 30 \times 9.8) + (8 \times 9.8)$$

$$F_{\text{net}} = 95.4\text{ N}$$

c) ~~$F_{\text{net}} = m \times a$~~ $W - F_T$

$$F_{\text{net}} = W - F_T$$

$$= (8 \times 9.8) - (2 \cos 30 \times 9.8)$$

$$F_{\text{net}} = 61.4\text{ N} \downarrow \text{ downwards}$$