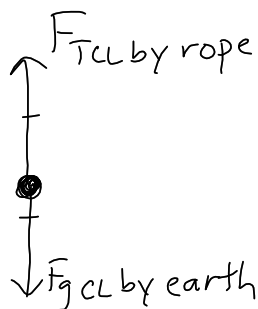


Answers to Unit 3 Quiz 2:

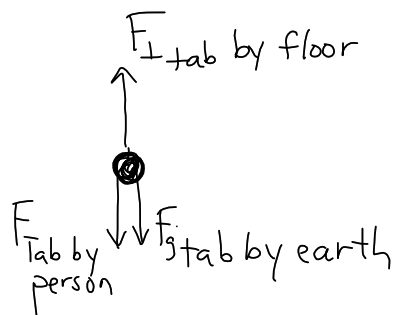
1. a)



$$b) F_T = F_g = mg = (75 \text{ kg})(10 \text{ N/kg})$$

$$F_T = 750 \text{ N}$$

2.



$$b) F_{\text{person}} + F_g = F_{\perp}$$

$$m_p g + 500 \text{ N} = F_{\perp}$$

$$(65 \text{ kg})(10 \text{ N/kg}) + 500 \text{ N} = 1150 \text{ N} = F_{\perp}$$

$$c) F_g = mg$$

$$m = \frac{F_g}{g} = \frac{500 \text{ N}}{10 \text{ N/kg}} = 50 \text{ kg}$$