

$$\sum F_y = m \cdot a_y$$

$$F_N - F_g = m \cdot a_y$$

$$F_N - 93.195 \text{ N} = 0$$

$$F_N = 93.195 \text{ N}$$

$$32.5 \text{ N} + F_B - 0.580(93.195 \text{ N}) = 20.52 \text{ N}$$

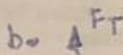
$$F_B = 92.0931 \text{ N}$$



$$F_g = (120 \text{ kg})(9.81 \text{ m/s}^2)$$

$$F_T = 1177.2 \text{ N} = 0$$

$$F_T = 1177.2 \text{ N}$$



$$F_g = (120 \text{ kg} + 2(70 \text{ kg}))(9.81 \text{ m/s}^2)$$

$$\sum F_y = m \cdot a_y$$

$$F_T - 2550.6 \text{ N} = 0$$

$$F_T = 2550.6 \text{ N}$$



$$F_g = (120 \text{ kg} + 2(70 \text{ kg}))(9.81 \text{ m/s}^2)$$

$$\sum F_y = m \cdot a_y$$

$$F_T - 2550.6 \text{ N} = 0$$

$$F_T = 2550.6 \text{ N}$$

$$3. \mu = \frac{F_f}{F_N} = \frac{9020.2 \text{ N}}{15500 \text{ N}}$$

$$\mu = 0.58$$

4.

$$a) a = \frac{8-2}{2-1} = \frac{6}{2} = 3 \text{ m/s}^2$$

$$F_R = (113 \text{ kg})(3 \text{ m/s}^2)$$

$$F_R = 339 \text{ N}$$

$$b) \begin{array}{|c|} \hline 6-8 \\ \hline 12-14 \\ \hline \end{array}$$

5)

$$106.25 \text{ N} + 45.8 \text{ N} + F_B - 0.39(633.43 \text{ N}) = 0$$

$$F_B = 65.05 \text{ N}$$

6)

$$0.939 F_c + 0.393 F_c = 1167.39$$

$$1.332 F_c = 1167.39$$

$$F_c = F_a = 877 \text{ N}$$

$$b. \frac{1220.82 - 720.63}{117} =$$

$$4.2 \text{ m/s}^2$$

$$8. \mu = \frac{F_f}{F_N} = \frac{2020.2}{1109.55} = \mu = 1.82$$