

Sample Exam #2 Answers

Problem 1)

All are equal (Newton's 3rd Law)

Problem 2)

a) 0.927 N

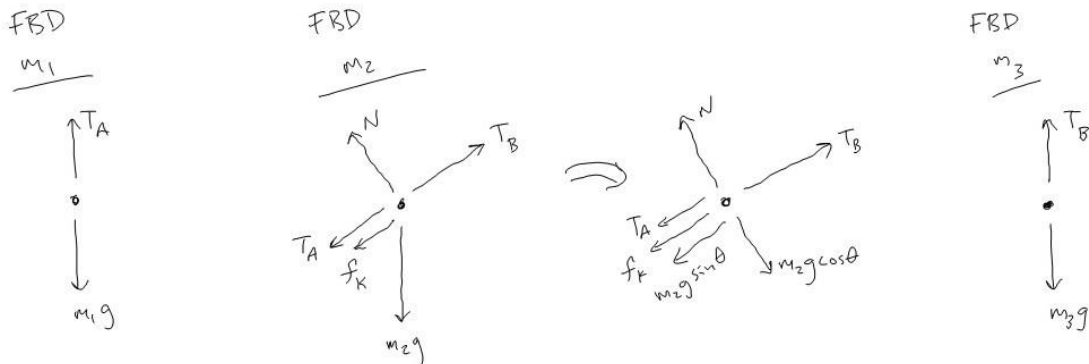
b) 13.8°

Problem 3)

$A > B = D > C = E = F$

Problem 4)

a)



b) None (None of the blocks touch each other)

c) Three unknowns, so you need three equations (one from each block):

$$T_A - m_1 g = m_1 a$$

$$m_3 g - T_B = m_3 a$$

$$T_B - T_A - \mu_k m_2 g \cos \theta - m_2 g \sin \theta = m_2 a$$