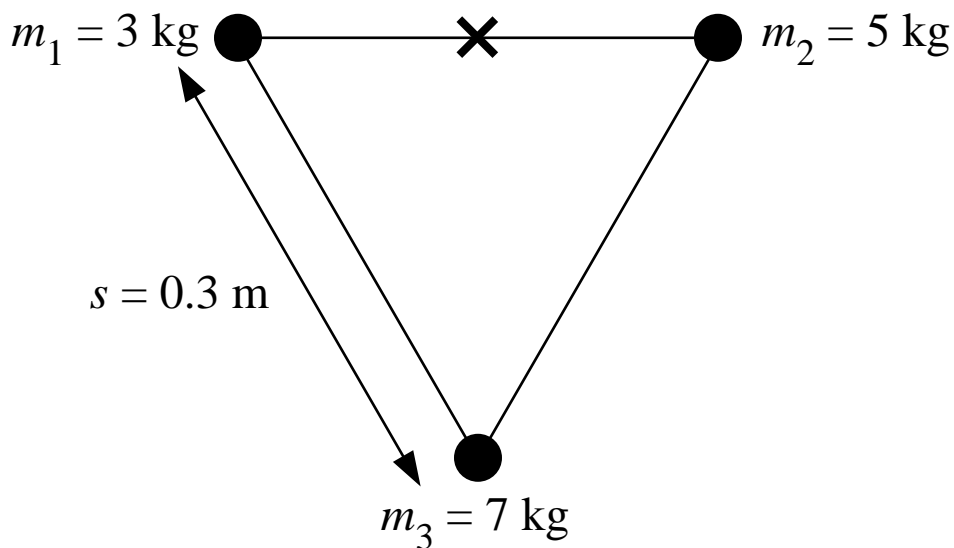


### Quiz 11



Masses  $m_1$ ,  $m_2$ , and  $m_3$  are placed at the corners of an equilateral triangle. Find the total force on a 2 kg mass placed at the spot marked with an X: the midpoint of the horizontal segment. Forces are vectors so you'll want to report  $x$  and  $y$  components. Draw a diagram showing the direction of each force acting on the 2 kg mass. On the same diagram, show (approximately) the direction of the total force on the 2 kg mass.

Physical Constants:

Newton's gravitational constant =  $G = 6.67 \times 10^{-11} \text{ N}\cdot\text{m}^2/\text{kg}^2$