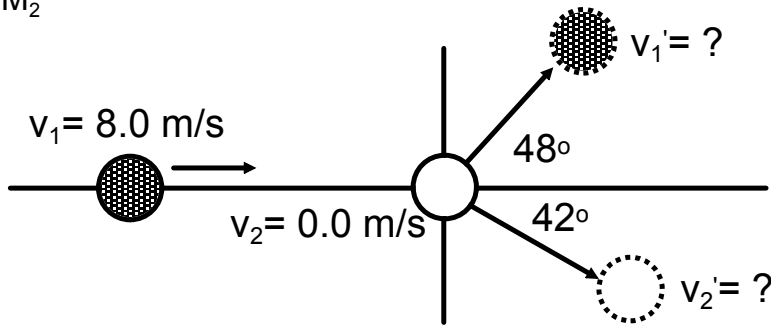


Conservation of Momentum in 2D - Practice

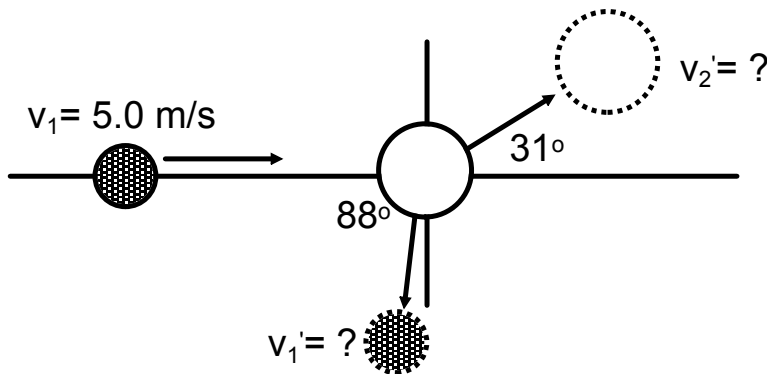
Physics 122

1) $M_1 = M_2$



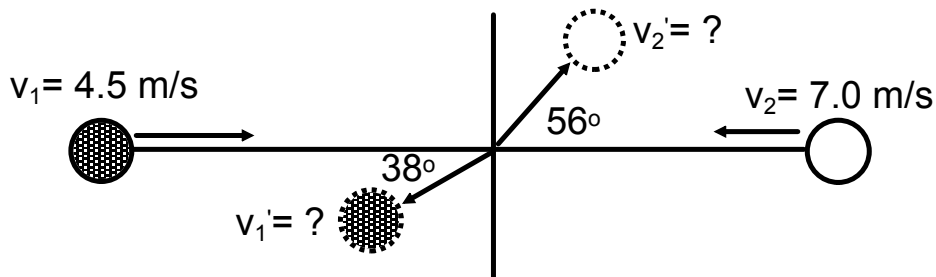
Answers
 $v_1' = 5.3 \text{ m/s}$
 $v_2' = 6.0 \text{ m/s}$

2) $M_1 = 1.5 \text{ kg}$; $M_2 = 3.0 \text{ kg}$



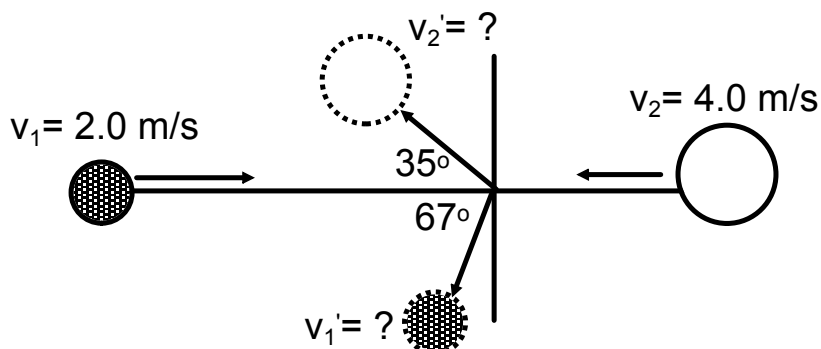
Answers
 $v_1' = 2.9 \text{ m/s}$
 $v_2' = 2.9 \text{ m/s}$

3) $M_1 = M_2$



Answers
 $v_1' = 6.7 \text{ m/s}$
 $v_2' = 5.0 \text{ m/s}$

4) $M_1 = 2.0 \text{ kg}$; $M_2 = 5.0 \text{ kg}$



Answers
 $v_1' = 4.6 \text{ m/s}$
 $v_2' = 3.0 \text{ m/s}$