

X	Y
$\Delta x = 45$	$\Delta y = -32$
$V_{ix} = 5.56$	$V_{iy} = 0$
$V_{fx} = 5.56$	$V_{fy} =$
$a_x = 0$	$a_y = -9.8$
$t = 8.09s$	

$\Delta d_y = V_{iy}t + \frac{1}{2}at^2$
 $-32 = \frac{1}{2}(-9.8)(t^2)$
 $\frac{-32 \cdot 2}{-4.9} = \frac{1}{-4.9}(t^2)$
 $\sqrt{65.5} = t$
 $V_x = \frac{\Delta x}{\Delta t}$
 $V_x = \frac{45}{8.09} = 5.56$

Oct 26-8:46 AM

X	Y
$\Delta x = 20.2$	$\Delta y = -20$
$V_{ix} = 10$	$V_{iy} = 0$
$V_{fx} = 10$	$V_{fy} = 19.8$
$a_x = 0$	$a_y = -9.8$
$t = 2.02s$	

$\Delta y = V_{iy}t + \frac{1}{2}at^2$
 $-20 = \frac{1}{2}(-9.8)t^2$
 $\sqrt{\frac{-20}{-4.9}} = t$
 $t = 2.02$
 $V_f^2 = V_i^2 + 2ad$
 $V_f^2 = 0^2 + 2(-9.8)(-20)$
 $\sqrt{V_f^2} = \sqrt{392}$
 $V_x = \frac{\Delta x}{\Delta t} = 10 = \frac{20.2}{2.02}$
 $V_y = 19.798 \text{ m/s}$

Oct 26-9:05 AM