

25m
 90m/s
 40°
 $90\sin 40$
 $90\cos 40$
 $V_f^2 = V_i^2 + 2ad$
 $V_f^2 = 57.9^2 + 2(-9.8)(25)$
 $V_f^2 = 3842.4\text{m/s}$
 62m/s
 $V_x = \frac{\Delta x}{\Delta t}$
 $68.9 \times 12.2 = X$
 840.6m
 $V_f = V_i + at$
 $-62 = 57.9 + (-9.8)t$
 12.2s

X	t
$\Delta x = 840.6$	$\Delta t = -25$
$V_{ix} = 68.9$	$V_{iy} = 57.9$
$V_{fx} = 68.9$	$V_{fy} = 62\text{m/s}$
$a_{ix} = 0$	$a_{iy} = -9.8$
$t = 12.2\text{s}$	$t = 12.2\text{s}$

Oct 29-7:50 AM

900m
 15m/s
 75°
 $15\sin 75$
 $15\cos 75$
 $V_f^2 = V_i^2 + 2ad$
 $V_f^2 = 14.5^2 + 2(-9.8)(900)$
 $V_f^2 = 17850.3$
 $V_{fy} = 133.6\text{m/s}$
 $V_x = \frac{\Delta x}{\Delta t}$
 $3.9 = \frac{\Delta x}{15.1}$
 58.9m
 $V_f = V_i + at$
 $-133.6 = 14.5 + (-9.8)t$
 15.1s

X	t
$\Delta y = 58.9$	$\Delta y = -900$
$V_{ix} = 3.9$	$V_{iy} = 14.5$
$V_{fx} = 3.9$	$V_{fy} = 133.6\text{m/s}$
$a_{ix} = 0$	$a_{iy} = -9.8$
$t = 15.1\text{s}$	$t = 15.1\text{s}$

Oct 29-8:48 AM