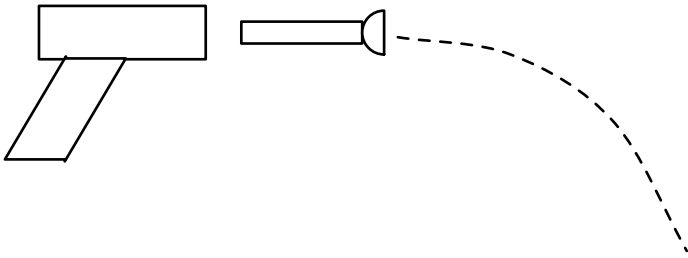


Take two distance measurements and calculate the launch speed  $V_x$  of the Power Rangers Dart Gun.



SHOW ON THIS DIAGRAM  
WHAT YOU MEASURED.

SHOW YOUR CALCULATION BELOW.

$$dx = (v_x)(t) \quad dy = (5)(t^2)$$

# Wk 22 Projectile Motion

## Angled Launch Wow

name: \_\_\_\_\_



4. On Nov. 15, 2010 Eagles' quarterback Michael Vick threw a pass that was in the air for about 2.2 seconds. It traveled 80.5 meters.

a) What is the time to get to the top?

b) What was  $V_y$ ?

c) What was  $V_x$ ?

d) Use the Pythagorean Theorem to find his actual launch velocity.



5. At the 1968 Olympics in Mexico City, Bob Beamon was in the air for approximately 1 second. He jumped 8.9 meters, setting the longest standing Olympic Record.

a) What is the time to get to the top?

b) What was  $V_y$ ?

c) What was  $V_x$ ?

d) Use the Pythagorean Theorem to find his actual total velocity.