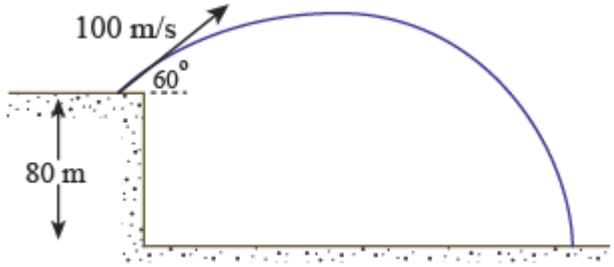
Name: _____ Practice Ph12 1-2

1. If an object is projected horizontally off the edge of a high cliff, at 65.0 m/s, how far from the base of the cliff does the ball land (in meters) if it is in the air for 3.20 seconds?

Use the following diagram to answer the next 1 questions (2 - 2).

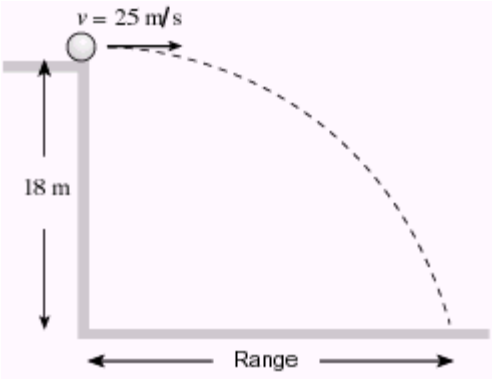


2. Calculate the horizontal range of the projectile.

3. A projectile is launched at 30 m/s over level ground at an angle of 37º to the horizontal. What maximum height does this projectile reach?
   A. 46 m
   B. 29 m
   C. 17 m
   D. 3.1 m

4. A projectile is launched over level ground with an initial velocity of 65 m/s at 30º above the horizontal. What is the projectile's time of flight?
   A. 13 s
   B. 3.6 s
   C. 6.6 s
   D. 11 s

5. What is the range of the projectile launched horizontally at 25 m/s from the 18 m-high cliff edge as shown in the diagram below?



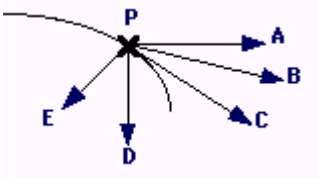
A. 48 m
B. 18 m
C. 30 m
D. 46 m

6. A boy throws a ball upwards. While the ball is rising its:
A. velocity and acceleration are both decreasing significantly.
B. velocity and acceleration are both downwards.
C. velocity is upward and its acceleration is downwards.
D. velocity and acceleration are both upward.

7. A projectile is launched with a speed of 56 m/s at an angle of 25° above the horizontal. If air friction is ignored, what is the speed of the projectile at the top of its trajectory?
A. 56 m/s
B. 0 m/s
C. 24 m/s
D. 51 m/s

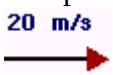
8. A projectile is fired at an angle of 45° above the horizontal. Assume that air resistance is not significant. While the projectile is in flight, the acceleration remains constant.
A. False
B. True

9. A small section of the path is shown opposite. Which arrow (A,B,C,D, or E) correctly indicates the direction of the **acceleration** at point **P**.



A. A
B. B
C. C
D. D
E. E

10. A ball is thrown a long distance across a field. Its flight along the curved path through the air lasts at least six seconds. Its velocity vector at a particular instant is horizontal as shown:



Neglect air resistance. Two seconds before this instant, its velocity vector was most like:

A. 

B. 

C. 

D. 

E.