

SAINT JOSEPH'S PREPARATORY SCHOOL
PHYSICS TEST T P FITZPATRICK
October 7, 2013

Name: _____ Section: _____ Period: _____

1. A stone is thrown horizontally from the roof of a building and is released 11.0 m above the level ground and exactly at the edge of the building's wall. If it lands 14.8 m from the base of the building, how fast was it thrown?
2. A water balloon is thrown downward from the edge of a building's roof. It is released at a height of 12.5 m above the ground and thrown at 13.6 m/s at an angle of 40.0° below the horizontal. How long is it in flight and how far from the base of the building does it land?
3. A small, spring powered canon fires a projectile at ground level with a speed of 22.5 m/s at an angle of 35.0° above the horizontal, How far from the canon does it land? How long is it air born? What is the maximum height that it reaches?
4. A bean bag is thrown onto the roof of a building that is 4.55 m above the level at which the bag was released. The bag is thrown at an angle of 47.0° above horizontal with a speed of 22.5 m/s. How far does the bag travel horizontally before landing on the roof? If the wall of the building is 5.00 m from the place where the bag was released, how far from the edge of the roof does the bean bag land?
5. A stone is thrown from the edge of a cliff with a speed of 45.9 m/s at an angle of 35.0° above the horizontal. If the cliff is 14.5 m high, how far from the base of the cliff does the stone land. How long is it in the air?
6. A baseball is thrown at an angle of 45.0° above the horizontal and lands 75.0 m away. What was the speed with which it was thrown?