

PROJECTILE MOTION WS 5

Name _____

Chris throws a rock at 21 m/s into the air at $40.^\circ$ above the horizontal. How long is the rock in the air?

What is the maximum height for the rock that Chris threw?

How far away from Chris did the rock land?

Nicole throws a ball at 25 m/s at an angle of $60.^\circ$ above the horizontal. What is the range of the ball?

A cannon fires a projectile at 75.0m/s at an angle of 56.7° above the horizontal. How high does the projectile get off the ground?

Mark Saxby is set to kick the field goal to win the state championship for Olathe East. He is 47.0m away from the goalposts, and he kicks the ball at a speed of 25.0m/s at an angle of 30.0° . If the cross bar on the goalposts is 3.00m above the ground, will the ball make it over the cross bar? And if it does make it, by how much will it clear?