

Learning Intention

- Learn to solve problems involving displacement and velocity under constant acceleration due to gravity

Notes

1. The acceleration due to gravity is _____.
2. A mean person decides to throw a rock straight up from the Lions Gate Bridge. There is a kayak directly below, 111 m [down]. The rock is thrown at an initial velocity of 15.0 m/s [up], and there is no friction or drag force.
 - a. How long does it take for the rock to reach its maximum height?
 - b. What maximum height above the bridge does the rock reach?
 - c. How long does it take for the rock to reach the bridge?
 - d. What is the velocity of the rock when it reaches the bridge?
 - e. How long does it take for the rock to hit the kayak below?
 - f. What is the velocity of the rock when it hits the kayak?

Mr. Renwick's Physics 11
Worksheet - Acceleration Due to Gravity

- g. Graph the acceleration, velocity, and displacement of the rock, from $t=0$ seconds until it hits the kayak.

