

Quadratics - Day 5
Assignment

Name _____

Date _____ Per. _____

Bart tossed an apple to Starr, who was on a balcony 40 feet above him, with an initial velocity of 56 feet per second. Starr missed the apple on the way up, but caught it on the way down. How long was it in the air? (Use the formula, $-16t^2 + 56t + 40$.)

11. If v = initial velocity (initial speed), what is the initial velocity? _____
12. What is the function? _____
13. What was the maximum height of the apple? _____
14. How long did it take to reach maximum height? _____
15. How long was the apple in the air? _____
16. What is a reasonable range for this situation? _____

Athletic Adam threw a ball straight up with an upward speed of 40 feet per second. His hand was 8 feet above the ground when he released the ball. Write a function that models the path of the ball. (Use the formula, $h = -16t^2 + 40t + 8$.)

17. How long was the ball in the air? _____
18. What was the maximum height of the ball? _____
19. How long did it take to reach maximum height? _____
20. After it reached maximum height, how long did it take to drop
to Earth? _____
21. What is a reasonable domain for this situation? _____