Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit 3C Test Form A**

1. After *t* seconds, a ball tossed in the air from the ground level reaches a height of

*h* feet given by the equation .

* 1. What is the height of the ball after 3 second?
  2. Find the number of seconds the ball is in the air when it reaches a height of 224 feet.
  3. After how many seconds will the ball hit the ground before rebound?

1. A rocket carrying fireworks is launched from a hill 80 feet above a lake. The rocket will fall into lake after exploding at its maximum height. The rocket’s height above the surface of the lake is given by .
   1. How long will it take for the rocket to hit 128 feet?
   2. After how many seconds after it is launched will the rocket hit the lake?
2. A rock is dropped from the top of a tall building, 382 feet high. The path, in feet, is given by. How long after the rock is thrown is it 100 from the ground?

Solve each quadratic equation using the best method.

1. 
2. 
3. 
4. 

Solve each quadratic equation using the best method.

1. 
2. 
3. 
4. 
5. 
6. 

**Non-Calculator Section Form A**

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_\_**

1. 2(x-3)2 – 4 = 46
   1. Which method would you use to solve the following problem? Justify your answer.
   2. List the steps you would use to solve the problem.
2. 10 = 12x – 3x2
   1. Which method would you use to solve the following problem? Justify your answer.
   2. Explain the steps you would use to solve the problem.
3. How many solutions and what type of solution to the following quadratic?

(DO NOT SOLVE)

2x2+3x-5