Name : _____ Score : _____

Quadratic Equation

Sheet 1

1) Abraham throws a ball from a point 40 m above the ground. The height of the ball from the ground level after 't' seconds is defined by the function $h(t) = 40t - 5t^2$. How long will the ball take to hit the ground?

_____

2) The area of a rectangular pool is 1260 ft^2. Find the dimensions of the rectangle, if one side of the pool is 48 ft more than three times the other side.

_____

3) The sum of the squares of two consecutive natural numbers is 313. Find the numbers.

_____

4) Two faucets can fill a tank in 1 hour and 20 mins. The time taken by faucet A alone to fill the tank is 2 hours more than faucet B were to fill the same tank separately. How long does it take faucet A alone to fill the tank?

_____

5) If one side of a square is increased by 10 cm and another side is increased by 5 cm, a rectangle is formed with an area that measures three times the area of the square. Find the length of the side of the square.

_____

Name : _____ Score : _____

Answer key

Quadratic Equation

Sheet 1

1) Abraham throws a ball from a point 40 m above the ground. The height of the ball from the ground level after 't' seconds is defined by the function $h(t) = 40t - 5t^2$. How long will the ball take to hit the ground?

8 seconds

2) The area of a rectangular pool is 1260 ft^2. Find the dimensions of the rectangle, if one side of the pool is 48 ft more than three times the other side.

90 ft by 14 ft

3) The sum of the squares of two consecutive natural numbers is 313. Find the numbers.

12 and 13

4) Two faucets can fill a tank in 1 hour and 20 mins. The time taken by faucet A alone to fill the tank is 2 hours more than faucet B were to fill the same tank separately. How long does it take faucet A alone to fill the tank?

2 hours

5) If one side of a square is increased by 10 cm and another side is increased by 5 cm, a rectangle is formed with an area that measures three times the area of the square. Find the length of the side of the square.

10 cm