

## Review Pg. 308#7alt(starting with b)

### U4P2L3 – 3.9 Solving Quadratic Equations

Students will solve problems involving quadratic equations by factoring.

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#### Examples

1. A ball is thrown straight down from a 180m high cliff. The relation  $h = -5t^2 - 5t + 180$  is a model that gives the approximate height of the ball  $h$ , in metres, at  $t$  seconds after it is thrown. How long does it take the ball to reach a ledge 80 m from the base of the cliff?

2. The population of a city is modeled by the relation  $P = 0.5t^2 + 10t + 200$ , where  $P$  is the population in thousands and  $t$  is the time in years. Note:  $t = 0$  corresponds to the year 2000.

a) What is the population in 2000?

b) What is the population in 2002?

c) When is the population 350 000?

3. Find the roots of  $18y - 14 = 4y^2$

Read Key Ideas pg. 312

Ex. Pg. 315 – 318 #(1 – 3)alt, 6alt,8,10,12,16