

12. A large bucket that is full of water has a small leak on the bottom. The bucket loses water at the rate of 0.5 gallon per minute. After 6 minutes the bucket contains exactly 9 gallons of water.

A. How many gallons of water were initially in the bucket?

_____ gallons

B. Write an equation in point-slope form to model the number of gallons (y) of water in the bucket after x minutes.

point-slope equation: _____

Go to the next page to finish question 12.

12. **Continued.** Please refer to the previous page for task explanation.

C. How many minutes does it take for the bucket to lose 7.5 gallons of water?

_____ minutes

D. What is the total number of minutes it will take for the bucket to be completely empty?

_____ minutes