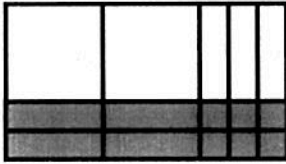


Algebra I – Unit 7: Solving Quadratics by Factoring

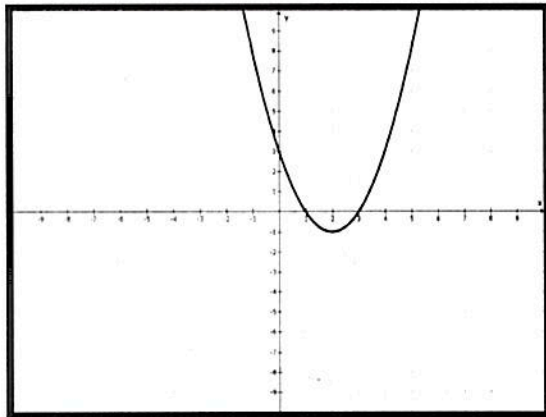
Solve the problems below by factoring.

10. The polynomial $2x^2 - x - 6$ is modeled below using algebraic tiles.



What are the solutions to the equation $2x^2 - x = 6$?

11. Which equation best represents the graph shown below.



- A $(x - 1)(x + 3) = y$
- B $(x + 1)(x + 3) = y$
- C $(x - 1)(x - 3) = y$
- D $(x + 1)(x - 3) = y$

12. A rectangular park has a length 4 meters longer than it's width. If the area of the park is 96 cm^2 , find the length of the park.

13. The dimensions of a rectangular garden were 3 meters by 10 meters. When both dimensions were increased by equal amounts, the area of the garden doubled. Find the dimensions of the new garden.

14. The height of a diver above the water during a dive can be modeled by $h = -16t^2 + 8t + 48$, where h is height in feet and t is time in seconds. Find the time it takes for the diver to reach the water.