

Factor Solve and Check Quadratics



Use the matching sheet ID when checking answers.

Use the material to work through each task. Show the requested response.

1. Factor $x^2 - 7x + 12$.

Answer: $(x - 3)(x - 4)$

2. Solve $x^2 - 7x + 12 = 0$.

Answer: $x = 3$ or $x = 4$

3. Solve $x^2 - 9 = 0$.

Answer: $x = -3$ or $x = 3$

4. Check $x = 2$ in $x^2 - 5x + 6 = 0$.

Answer: $4 - 10 + 6 = 0$; it is a solution

5. A rectangle has sides x and $x + 1$ and area 12. Find its positive side lengths.

Answer: 3 and 4

6. Why cannot you set each factor to zero when $(x - 2)(x - 3) = 6$?

Look for:

- States the necessary zero-product condition.

One possible response: The zero-product rule applies only when the product is zero.

Open responses use criteria and an illustrative response. Other well-supported responses can be acceptable.