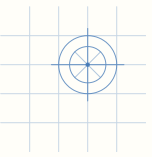


Solving quadratics — Factor it first



Name: _____

Date: _____

Factor first, then solve. Write the two values of x .

1 $x^2 - 11x + 28 = 0$
 $(x - 4)(x - 7) = 0$
 $x - 4 = 0$ or $x - 7 = 0$
 $x - 4 = 0 \rightarrow x = 4$
 $x - 7 = 0 \rightarrow x = 7$
 $x = 4$ or $x = 7$

2 $x^2 + 16x + 28 = 0$

3 $x^2 + 2x - 3 = 0$

4 $x^2 - 26x + 120 = 0$

5 $x^2 + 19x + 90 = 0$

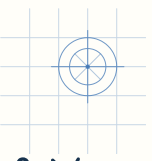
6 $x^2 + 4x - 165 = 0$

7 $x^2 + 9x + 14 = 0$

8 $x^2 - 21x + 98 = 0$



Solving quadratics · Factor it first — Answer key



1. $x^2 - 11x + 28 = 0 \rightarrow (x - 4)(x - 7) = 0 \rightarrow x = 4 \text{ or } x = 7$

2. $x^2 + 16x + 28 = 0 \rightarrow (x + 14)(x + 2) = 0 \rightarrow x = -14 \text{ or } x = -2$

3. $x^2 + 2x - 3 = 0 \rightarrow (x - 1)(x + 3) = 0 \rightarrow x = 1 \text{ or } x = -3$

4. $x^2 - 26x + 120 = 0 \rightarrow (x - 6)(x - 20) = 0 \rightarrow x = 6 \text{ or } x = 20$

5. $x^2 + 19x + 90 = 0 \rightarrow (x + 10)(x + 9) = 0 \rightarrow x = -10 \text{ or } x = -9$

6. $x^2 + 4x - 165 = 0 \rightarrow (x - 11)(x + 15) = 0 \rightarrow x = 11 \text{ or } x = -15$

7. $x^2 + 9x + 14 = 0 \rightarrow (x + 2)(x + 7) = 0 \rightarrow x = -2 \text{ or } x = -7$

8. $x^2 - 21x + 98 = 0 \rightarrow (x - 14)(x - 7) = 0 \rightarrow x = 14 \text{ or } x = 7$