

Key

Find the x and y intercepts.

1. $4x(7+x) = y$

$x = 0, -7 \quad y = 0$

2. $(x-3)(x+5) = y$

$x = 3, -5 \quad y = -15$

3. $(x-7)(x-1) = y$

$x = 7, 1 \quad y = 7$

4. $(x+1)(2x-3) = y$

$x = -1, 3/2 \quad y = -3$

5. $(3x+5)(3x-5) = y$

$x = -5/3, 5/3 \quad y = -25$

6. $x^2 - 9x = y$

$x(x-9) = y$

$x = 0, 9 \quad y = 0$

7. $2x + 5x^2 = y$

$x(2 + 5x) = y$

$x = 0, -2/5 \quad y = 0$

8. $y = x^2 + 10x + 21$

$y = (x+3)(x+7)$

$x = -3, -7 \quad y = 21$

9. $y = x^2 + 3x + 20$

does NOT factor!
 $y = 20$
no x-intercepts!

10. $y = x^2 - 11x - 80$

$y = (x-16)(x+5)$

$x = 16, -5 \quad y = -80$

11. $7x^2 - 175 = y$

$7(x^2 - 25) = y$

$7(x+5)(x-5) = y$

$x = \pm 5$

$y = -175$

12. $y = 5x^2 - 64x - 13$

$y = (5x+1)(x-13)$

$x = -1/5, 13 \quad y = 13$

13. $8x^2 - 14x + 5 = y$

$(4x-5)(2x-1) = y$

$x = 5/4, 1/2 \quad y = 5$

14. $11 + 23x + 2x^2 = y$

$(2x+1)(x+11) = y$

$x = -1/2, x = -11$

$y = 11$