

Solving by Factoring Practice

Solve each equation.

1) $x(x-4) = 0$

$x=0$ $x=4$

$x=0$

$x-4=0$
 $x=4$

2) $(x-3)(x+5) = 0$

$x=3, x=-5$

$x-3=0$

$x+5=0$

$x=3$
 $x=-5$

3) $(7x-1)(3x+1) = 0$

$7x-1=0$

$3x+1=0$

$x = 1/7$

$x = -1/3$

4) $(x+1)(x-1) = 0$

$x = \pm 1$

$x-1=0$

$x+1=0$

$x=1$

$x=-1$

Factor using GCF. Then solve.

5) $x^2 + 6x = 0$

$x(x+6) = 0$

$x=0$

$x+6=0$

$x=-6$

Factor using DOTS. Then solve.

7) $x^2 - 25 = 0$

$(x+5)(x-5) = 0$

$x = \pm 5$

$x+5=0$ $x=-5$

$x-5=0$ $x=5$

8) $64x^2 - 49 = 0$

$(8x-7)(8x+7) = 0$

$x = \pm 7/8$

$8x-7=0$ $x=7/8$

$8x+7=0$ $x=-7/8$

Solve each equation by factoring.

9) $x^2 + 7x + 10 = 0$

$(x+5)(x+2) = 0$

$x = -5, -2$

10) $x^2 - 10x + 24 = 0$

$(x-4)(x-6) = 0$

$x = 4, x = 6$

11) $x^2 - x - 20 = 0$

$(x-5)(x+4) = 0$

$x = 5$

$x = -4$

12) $x^2 + 3x - 40 = 0$

$(x-5)(x+8) = 0$

$x = 5, x = -8$

Solve each equation by factoring (Bottoms Up).

13) $7x^2 + 15x + 8 = 0$

56
7, 8

$(x+8/7)(x+7/7) = 0$

$(x+8/7)(x+1) = 0$ $x = -8/7, -1$

14) $3x^2 - 7x + 4 = 0$

12

$(x-4/3)(x-3/3) = 0$

$(x-4/3)(x-1) = 0$

$x = 4/3$
 $x = 1$

15) $5x^2 - 19x - 4 = 0$

20

$(x-20/5)(x+1/5) = 0$ 1, 20

$(x-4)(x+1/5) = 0$ $x = 4, -1/5$

16) $2x^2 + 3x - 2 = 0$

$(x-2/2)(x+5/2) = 0$ 10, 2, 5

$(x-1)(x+5/2) = 0$
 $x = 1, -5/2$