

<p>1) $3x^2 - 6x = 0$</p> $3x(x-2) = 0$ $3x = 0 \text{ OR } x-2 = 0$ $x = 0 \quad x = 2$	<p>2) $x^2 + 7x + 12 = 0$</p> $(x+4)(x+3) = 0$ $x+4 = 0 \text{ OR } x+3 = 0$ $x = -4 \quad x = -3$
<p>3) $9x^2 - 6x + 1 = 0$ p 9 s - 6 use -3, -3</p> $9x^2 - 3x - 3x + 1 = 0$ $3x(3x-1) - 1(3x-1) = 0$ $(3x-1)(3x-1) = 0$ $3x-1 = 0 \text{ OR } 3x-1 = 0$ $3x = 1$ $x = \frac{1}{3}$	<p>4) $3x^2 + 11x - 4 = 0$ p-12 s14 use -12, 1</p> $3x^2 - 12x + 1x - 4 = 0$ $3x(x-4) - 1(x-4) = 0$ $(x-4)(3x-1) = 0$ $x-4 = 0 \text{ OR } 3x-1 = 0$ $x = 4 \quad 3x = 1$ $x = \frac{1}{3}$
<p>5) $2x^2 + 9x - 5 = 0$ p-10 s9 use 10, -1</p> $2x^2 + 10x - 1x - 5 = 0$ $2x(x+5) - 1(x+5) = 0$ $(x+5)(2x-1) = 0$ $x+5 = 0 \text{ OR } 2x-1 = 0$ $x = -5 \quad 2x = 1$ $x = \frac{1}{2}$	<p>6) $6x^2 - 13x + 2 = 0$ p-13 p12 use -12, 1</p> $6x^2 - 12x - 1x + 2 = 0$ $6x(2x-2) - 1(x-2) = 0$ $(x-2)(6x-1) = 0$ $x-2 = 0 \text{ OR } 6x-1 = 0$ $x = 2 \quad 6x = 1$ $x = \frac{1}{6}$
<p>7) $5x^2 - 8x - 4 = 0$ p-20 s-8 use -10, 2</p> $5x^2 - 10x + 2x - 4 = 0$ $5x(x-2) + 2(x-2) = 0$ $(x-2)(5x+2) = 0$ $x-2 = 0 \text{ OR } 5x+2 = 0$ $x = 2 \quad 5x = -2$ $x = -\frac{2}{5}$	<p>8) $4x^2 + 2x - 2 = 0$ p-8 s2 use 4, -2</p> $4x^2 + 4x - 2x - 2 = 0$ $4x(x+1) - 2(x+1) = 0$ $(x+1)(4x-2) = 0$ $x+1 = 0 \text{ OR } 4x-2 = 0$ $x = -1 \quad 4x = 2$ $x = \frac{1}{2}$

$$9) x^2 - 25 = 0$$

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

$$x+5=0 \text{ OR } x-5=0$$

$$x = -5$$

$$x = 5$$

$$10) 4x^2 - 1 = 0$$

$$(2x+1)(2x-1) = 0$$

$$2x+1=0 \text{ OR } 2x-1=0$$

$$2x = -1$$

$$2x = 1$$

$$x = -\frac{1}{2}$$

$$x = \frac{1}{2}$$

$$11) 2x^2 - 8 = 0$$

$$2(x^2 - 4) = 0$$

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

$$x+2=0 \text{ OR } x-2=0$$

$$x = -2$$

$$x = 2$$

$$12) x^2 + 8x + 16 = 0$$

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

$$x+4=0 \text{ OR } x+4=0$$

$$x = -4$$

$$13) 9x^2 - 30x + 25 = 0$$

p 225

$$9x^2 - 15x - 15x + 25 = 0$$

s -30

use -15, -15

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

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

$$3x-5=0 \text{ OR } 3x-5=0$$

$$3x = 5$$

$$x = \frac{5}{3}$$

$$14) 4x^2 + 20x + 25 = 0$$

p 100

s 20

$$4x^2 + 10x + 10x + 25 = 0$$

use 10, 10

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

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

$$2x+5=0 \text{ OR } 2x+5=0$$

$$2x = -5$$

$$x = -\frac{5}{2}$$