

Solve by factoring:

1)  $x^2 - x - 50 = 6$

8, -7

$$x^2 - x - 56 = 0$$
$$(x-8)(x+7) = 0$$

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

$5/2, 2$

$$2x^2 - 9x + 10 = 0$$
$$(2x-5)(x-2) = 0$$

3)  $6x^2 + 5 = -17x$

$-1/3, -5/2$

$$6x^2 + 17x + 5 = 0$$
$$(3x+1)(2x+5) = 0$$

4)  $x^2 - 25 = 0$

5, -5

$$x^2 + 0x - 25 = 0$$
$$(x+5)(x-5) = 0$$

5)  $x^2 - 24x = 0$

0, 24

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

6)  $3x^2 + 2x - 6 = 2$

$3x^2 + 2x - 8 = 0$

*a* *b* *c\**  
-2 -2  
8  
2  
4

$$(3x-4)(x+2) = 0$$

$-4x$   
 $+6x$   
 $+2x$

$$3x - 4 = 0$$
$$+4 \quad +4$$

$$\frac{3x}{3} = \frac{4}{3}$$
$$\boxed{x = 4/3}$$

$$x + 2 = 0$$
$$-2 \quad -2$$

$$\boxed{x = -2}$$

Summary: