6. $(9x-2)^2 = 25$

$9x-2 = \pm\sqrt{25}$

$9x-2 = \pm\sqrt{5\cdot 5}$

$9x-2 = \pm 5$

$9x = 2 \pm 5$

$\frac{9x}{9} = \frac{2\pm 5}{9}$

$x = \frac{2\pm 5}{9}$

(+) $x = \frac{2+5}{9} = \frac{7}{9}$

(−) $x = \frac{2-5}{9} = \frac{-3}{9} = -\frac{1}{3}$

7. $(3x+5)^2 = 12$

$3x+5 = \pm\sqrt{12}$

$3x+5 = \pm\sqrt{2\cdot 2\cdot 3}$

$3x+5 = \pm 2\sqrt{3}$

$3x = -5 \pm 2\sqrt{3}$

$\frac{3x}{3} = \frac{-5\pm 2\sqrt{3}}{3}$

$x = \frac{-5\pm 2\sqrt{3}}{3}$

8. $x^2 - 4x - 7 = 0$

$x^2 - 4x = 7$

$(-4\cdot\frac{1}{2})^2 = (-2)^2 = 4$

$x^2 - 4x + 4 = 7 + 4$

$x^2 - 4x + 4 = 11$

$(x-2)^2 = 11$

$x - 2 = \pm\sqrt{11}$

$x = 2 \pm \sqrt{11}$

COMPLETING THE SQUARE

1. DIVIDE EVERYTHING BY THE NUMBER IN FRONT OF x^2
2. TAKE THE NUMBER TO RIGHT SIDE
3. TAKE THE NUMBER BEFORE THE x, MULTIPLY IT BY $\frac{1}{2}$, SQUARE IT, THEN ADD TO BOTH SIDES
4. FACTOR LEFT SIDE
5. USE SQUARE ROOT PROPERTY TO SOLVE FOR x