Worksheet 9/5/2025

Solve for all real values of x that satisfy the following equation.

1)
$$(x-2)(x+3) = 0$$

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

3)
$$x^2 + 4x + 3 = 0$$
 (use both completing the square method and quadratic formula)

4)
$$x^2 - 4x + 4 = 0$$
 (use both completing the square method and quadratic formula)

5)
$$x^2 + 2x + 3 = 0$$
 (use both completing the square method and quadratic formula)

6)
$$\frac{x-2}{3} + \frac{x}{4} = \frac{1}{2}$$

$$7) \ \frac{x-1}{2} + \frac{2}{x} = 2$$

8)
$$\sqrt{x+5} = x+1$$