

1. What are the solutions of

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

☒ A $-\frac{3}{2}$ and 5

B -5 and $\frac{3}{2}$

C $\frac{3}{2}$ and 5

2. What is the correct factorization of $x^2 + 6x + 8$?

A $(x + 8)(x + 1)$

B $(x + 4)(x + 4)$

☒ C $(x + 4)(x + 2)$

3. Factor and solve $x^2 - 7x - 30 = 0$.
What are the solutions?

A -10 and 3

☒ B 10 and -3

C 10 and 3

4. What are the solutions of $x^2 - x - 6 = 0$?

A -2 and -3

☒ B -2 and 3

C 2 and -3

5. What is the correct factorization of $3x^2 + 14x + 8$?

A $(3x + 4)(x + 2)$

☒ B $(3x + 2)(x + 4)$

C $(3x + 8)(x + 1)$

6. What are the solutions of

$2x^2 + 4x - 6 = 0$?

☒ A -3 and 1

B $-\frac{1}{2}$ and 6

C 3 and 6

7. What is the complete factorization of $25x^2 - 36$?

A $(5x + 6)(5x + 6)$

B $(5x - 6)(5x - 6)$

☒ C $(5x + 6)(5x - 6)$

8. Solve $2x^2 - 17x = 9$.

$$2x^2 - 17x - 9 = 0$$

$$\Rightarrow (2x+1)(x-9)=0 \Rightarrow \begin{matrix} 2x+1=0 \\ x-9=0 \end{matrix}$$

$$x = -\frac{1}{2} \text{ and } 9$$

9. Solve $4x^2 - 16 = 0$.

$$\Rightarrow (2x-4)(2x+4) = 0$$

$$2x-4=0 \Rightarrow 2x=4 \Rightarrow x=2$$

$$2x+4=0 \Rightarrow 2x=-4 \Rightarrow x=-2$$

$$x = \pm 2$$

10. Solve $x^2 - 20x + 100 = 0$.

$$\Rightarrow (x-10)(x-10) = 0$$

$$\Rightarrow (x-10)^2 = 0$$

$$x = 10$$