



NAME : _____

CLASS : _____

DATE : _____

Homework 7.3 due Mon 3/22 *3 Problems Require Work*

10 Questions

1. WORK REQUIRED: Show the Big X and the trinomial factored!

Use factoring to solve: $2x^2 - x - 15 = 0$

- a) $x = -\frac{5}{2}$ and $x = 3$
- b) $x = \frac{5}{2}$ and $x = -3$
- c) $x = \frac{5}{2}$ and $x = 3$
- d) $x = -\frac{5}{2}$ and $x = -3$

2. WORK REQUIRED: Complete factors must be shown!

Solve: $5x^2 - 45 = 0$

- a) $x = 3$
- b) $x = -3$
- c) $x = 3$ and $x = -3$
- d) $x = 0$, $x = 3$, and $x = -3$

3. Factor completely to determine the two factors of

$3x^2 + 7x - 6 = 0$

- a) $(x - 3)$
- b) $(x + 3)$
- c) $(3x - 2)$
- d) $(3x + 9)$
- e) $(x - 6)$

4. Factor completely to determine the two factors of

$$2x^2 + x = 6$$

a) $(2x - 3)$

b) $(x + 2)$

c) $(2x + 4)$

d) $(x + 3)$

e) $(2x - 1)$

5. Solve: $4x^2 + 15x + 14 = 0$

a) $x = \frac{7}{4}$ and $x = 2$

b) $x = -\frac{7}{4}$ and $x = 2$

c) $x = \frac{7}{4}$ and $x = -2$

d) $x = -\frac{7}{4}$ and $x = -2$

6. WORK REQUIRED: Factor a GCF and then use the Big X

$$\text{Solve: } 0 = 3x^2 - 12x - 15$$

a) $x = -5$ and $x = 1$

b) $x = 5$ and $x = -1$

c) $x = 0$, $x = 5$, and $x = -1$

d) $x = -5$ and $x = -1$

7. Solve: $2x^2 - 32 = 0$

a) $x = 0$, $x = 4$, and $x = -4$

b) $x = 4$

c) $x = -4$

d) $x = 4$ and $x = -4$

8. Simplify: $(2x^2 + 3x - 4) + (7x - 12)$

a) $2x^2 + 4x - 16$

b) $2x^2 + 10x - 16$

c) $2x^2 + 10x - 8$

d) $2x^2 + 10x + 16$

9. Simplify: $(8y^2 - 7y - 1) - (y^2 - y + 12)$

a) $7y^2 - 6y^2 - 13$

b) $7y^2 - 6y - 13$

c) $7y^2 - 8y + 11$

d) $7y^2 + 6y + 12$

10. Simplify: $(3x + 5)(2x - 7)$

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

b) $5x^2 - 31x - 35$

c) $6x^2 - 11x - 35$

d) $-17x - 35$