

factor

$$x^2 - 13x + 40$$

$$x^2 - 8x \quad \left\{ \begin{array}{l} -5x + 40 \end{array} \right.$$

$$x(x-8) \quad \left\{ \begin{array}{l} -5(x-8) \end{array} \right.$$

$$(x-5)(x-8)$$

$$-8 \cdot -5 = 40$$

$$-8 + -5 = -13$$

$$x^2 - 13x + 40$$

$$40 = -8 + 5 = -13$$

$$(x - 8)(x - 5)$$

$$-15 + -2 = -17x \quad 3x^2 - 17x + 10$$

$$-15 \bullet -2 = 30x^2 \quad 3x^2 - 15x \quad -2x + 10$$

$$3x(x-5) \quad -2(x-5)$$

$$10 + 3 = 13$$

$$15 + 2 = 17$$

$$-15 - 2 = -17$$

$$(3x-2)(x-5)$$

$$10x^2 - 19x + 6$$

$$-15 + -4 = -19$$

$$10x^2 - 15x \quad \left. \begin{array}{l} -4x + 6 \\ 5x(2x - 3) \end{array} \right\} -2(2x - 3)$$

$$-15 \cdot -4 = 60$$

$$5x(2x - 3) \quad \left. \begin{array}{l} -4x + 6 \\ -2(2x - 3) \end{array} \right\}$$

$$10 + 6 = 16$$

$$(5x - 2)(2x - 3)$$

$$12 + 5 = 17$$

$$30 + 2 = 32$$

$$-15 + 4 = -11$$

$$\frac{10}{15} = \frac{2}{3}$$

# Homework

## Pg. 260 #35-45 odd

**FACTORING  $ax^2 + bx + c$**  Factor the trinomial. If the trinomial cannot be factored, say so.

35.  $2x^2 + 7x + 3$

36.  $3x^2 + 17x + 10$

37.  $8x^2 + 18x + 9$

38.  $5x^2 - 7x + 2$

39.  $6x^2 - 9x + 5$

40.  $10x^2 - 19x + 6$

41.  $3k^2 + 32k - 11$

42.  $11m^2 + 14m - 16$

43.  $18n^2 + 9n - 14$

44.  $7u^2 - 4u - 3$

45.  $12v^2 - 25v - 7$

46.  $4w^2 - 13w - 27$