

Warm-Up:

Factor.

1)  $4x^2 + 12xy + 9y^2$

$$(2x + 3y)(2x + 3y)$$

$6xy + 6xy$

2)  $m^2 - 14m + 48$

$$(m - 6)(m - 8)$$

4, 24, 14

4)  $3g^2 - 7g + 2$

$$(g - 2)(3g - 1)$$

$-2g - 3g$   
 $-g - 6g$

14)  $10w^2 - 19w - 15$

$$(5w + 3)(2w - 5)$$

$-25w + 6w$

24)  $6d^2 + 21d = 10d + 35$

$$\begin{array}{r} 6d^2 + 21d = 10d + 35 \\ -10d \quad -10d \\ \hline 6d^2 + 11d = 35 \\ -35 \quad -35 \\ \hline \end{array}$$

$$6d^2 + 11d - 35 = 0$$

$$(3d - 5)(2d + 7) = 0$$

$$\begin{array}{r} -15d + 14d \\ -21d + 10d \end{array}$$

$$3d - 5 = 0 \quad \text{or} \quad 2d + 7 = 0$$

$$3d = 5 \quad 2d = -7$$

$$d = \frac{5}{3} \quad \text{or} \quad d = -\frac{7}{2}$$

Factor using the best method.

1)  $(x^3 - 4x^2) + (3x - 12)$  - Grouping

$$x^2(x-4) + 3(x-4)$$

$$(x-4)(x^2+3)$$

2)  $a^2 - 13a + 36$  - Undo FOIL

$$(a-9)(a-4)$$

Factor using the best method.

3)  $8x^3 - 16x^2 + 20xy$  - GCF

$$4x(2x^2 - 4x + 5y)$$

4)  $3x^2 + 35x - 12$  - Undo FOIL

$$(3x-1)(x+12)$$

$$36x - x$$

## Homework: Review Worksheet