

Name: KEY  
Date: \_\_\_\_\_

### F.3 Worksheet

#### Factor

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

$$\begin{array}{r} \times 16 \\ + 10 \\ 8, 2 \end{array}$$
$$(x+8)(x+2)$$

2)  $y^2 + 4y - 21$

$$\begin{array}{r} \times -21 \\ + 4 \\ 7, -3 \end{array}$$
$$(y+7)(y-3)$$

3)  $p^2 - 6p - 7$

$$\begin{array}{r} \times -7 \\ + -6 \\ -7, 1 \end{array}$$
$$(p-7)(p+1)$$

4)  $n^2 - 2n + 1$

$$\begin{array}{r} \times 1 \\ + -2 \\ -1, -1 \end{array}$$
$$(n-1)(n-1)$$
$$(n-1)^2$$

5)  $t^2 + t - 42$

$$\begin{array}{r} \times -42 \\ + 1 \\ 7, -6 \end{array}$$
$$(t+7)(t-6)$$

6)  $k^2 + 10k + 25$

$$\begin{array}{r} \times 25 \\ + 10 \\ 5, 5 \end{array}$$
$$(k+5)(k+5)$$
$$(k+5)^2$$

7)  $-12 + q^2 - q$

$$\begin{array}{r} q^2 - q - 12 \\ \times -12 \\ + -1 \\ -4, 3 \end{array}$$
$$(q-4)(q+3)$$

8)  $3x + x^2 - 28$

$$x^2 + 3x - 28$$
$$(x+7)(x-4)$$

9)  $4 + 5y + y^2$

$$y^2 + 5y + 4$$
$$(y+4)(y+1)$$

10)  $m^2 - 3mn + 2n^2$

$$(m-2n)(m-n)$$

11)  $x^2 - 7xy - 30y^2$

$$(x-10y)(x+3y)$$

12)  $2x^2 + 26x + 24$

$$2(x^2 + 13x + 12)$$
$$2(x+12)(x+1)$$

13)  $-3p^2 - 12p + 36$

$$-3(p^2 + 4p - 12)$$
$$-3(p+6)(p-2)$$

14)  $k + 56 - k^2$

$$-k^2 + k + 56$$
$$-1(k^2 - k - 56)$$
$$-1(k-8)(k+7)$$

15)  $8x + 4x^2 - 60$

$$4x^2 + 8x - 60$$
$$4(x^2 + 2x - 15)$$
$$4(x+5)(x-3)$$