

Name: KEY
Date: _____

F.5 Worksheet

Factor

1) $x^2 - 3x - 54$

$$(x-9)(x+6)$$

2) $2p^4 - 6p + 8p^2$

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

3) $m^2 - 25$

$$(m+5)(m-5)$$

4) $-7y^2 - 28$

$$-7(y^2 + 4)$$

5) $16t + 64 + t^2$

$$t^2 + 16t + 64$$
$$(t+8)(t+8)$$
$$(t+8)^2$$

6) $-3y^3 - 6y^2 + 24y$

$$-3y(y^2 + 2y - 8)$$
$$-3y(y+4)(y-2)$$

7) $24 - 40w$

$$8(3 - 5w)$$

8) $98x^2 - 50y^2$

$$2(49x^2 - 25y^2)$$
$$2(7x+5y)(7x-5y)$$

9) $3n^2 - 12n - 15$

$$3(n^2 - 4n - 5)$$
$$3(n-5)(n+1)$$

10) $45 - 14x + x^2$

$$x^2 - 14x + 45$$
$$(x-9)(x-5)$$

11) $-4a^2b^3c^2 - 14abc^3$

$$-2abc^2(2ab^2 + 7c)$$

12) $16 - m^2$

$$(4+m)(4-m)$$

13) $162 + 2w^2 - 36w$

$$2w^2 - 36w + 162$$

$$2(w^2 - 18w + 81)$$

$$2(w-9)(w-9)$$

$$2(w-9)^2$$

14) $5x^2 - 80y^2$

$$5(x^2 - 16y^2)$$

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

15) $-64p - 48q$

$$-16(4p+3q)$$