Questions?

Factor wksht #4   Name **Key**

Factor completely

1. $6x^3 - 48$

$$6(x-2)(x^2+2x+4)$$

9. $216 - 343y^3 = (6-7y)(36+42y+49y^2)$

or

$$-1(7y-6)(49y^2+42y+36)$$

2. $w^2 - 64$

$$(w+8)(w-8)$$

10. $3ab - 5bc + bd$

$$b(3a-5c+d)$$

3. $x^4 - 121$

$$(x^2+11)(x^2-11)$$

11. $625y^4 - 16$

$$(25y^2+4)(5y+2)(5y-2)$$

4. $3x^5 - 12x^2$

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

12. $x^2 - 3x - 2$ prime

5. $-2b^2 + 6b + 80$

$$-2(b-8)(b+5)$$

13. $4x^3 + 40x^2 + 64x$

$$4x(x+8)(x+2)$$

6. $64y^3 + 27$

$$(4y+3)(16y^2-12y+9)$$

14. $2a^2 - 3ac + 4ab - 6bc$

$$(2a-3c)(a+2b)$$

15. $xz - xw - yz + yw$

$$(x-y)(z-w)$$

7. $x^2 + 14xy - 32y^2$

$$(x+16y)(x-2y)$$

16. $3n^2 + 7n - 20$

$$(3n-5)(n+4)$$

8. $6x^2 - x - 12$

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