

**WORKSHEET # 10 [ 5.4, 5.5, & 7.5]**

1. Factor completely:  $x^2 - 2x - 8$

[A]  $(x+4)(x+2)$  [B]  $(x-4)(x-2)$

[C]  $(x+4)(x-2)$  [D]  $(x-4)(x+2)$

[1] \_\_\_\_\_

2. Factor completely:  $x^2 - 9xy + 20y^2$

[2] \_\_\_\_\_

3. Factor.  $x^2 + 3x - 4$

[A]  $(x+1)(x+4)$  [B]  $(x+1)(x-4)$

[C]  $(x-1)(x-4)$  [D]  $(x-1)(x+4)$

[3] \_\_\_\_\_

4. Factor:  $x^2 + 5x + 4$

[A]  $(x+5)(x+4)$  [B]  $(x-1)(x-4)$

[C]  $(x-1)(x+4)$  [D]  $(x+1)(x+4)$

[4] \_\_\_\_\_

5. Which is a factor of  $2x^2 + 2x - 12$  ?

[A]  $x+3$  [B]  $x-1$  [C]  $x+4$  [D]  $x+2$

[5] \_\_\_\_\_

6. Write the factors of  $2x^2 + 4x - 16$ .

[6] \_\_\_\_\_

7. Factor:  $4x^2 - 8x - 12$

[A]  $(x-3)(x+1)$  [B]  $4(x-3)(x+1)$

[C]  $4(x+3)(x+1)$  [D]  $(x+3)(x+1)$

[7] \_\_\_\_\_

8. Factor completely:  $12x^2 - 29xy + 15y^2$

[A]  $(4x+3y)(3x+5y)$

[B]  $(4x+3y)(3x-5y)$

[C]  $(4x-3y)(3x-5y)$

[D]  $(4x-3y)(3x+5y)$

[8] \_\_\_\_\_

9. Factor completely:  $3x^2 - 10x + 3$

[9] \_\_\_\_\_

10. Factor:  $3x^2 - 13x - 56$

[A]  $(x-7)(3x-8)$  [B]  $(3x+8)(x+7)$

[C]  $(3x+8)(x-7)$  [D]  $(3x-8)(x+7)$

[10] \_\_\_\_\_

11. Factor:  $3x^2 + 6xy - 6y - 3x$

[11] \_\_\_\_\_

Factor:

12.  $3x^3 - 3x^2 - 18x$

[12] \_\_\_\_\_

13.  $24x^4y + 22x^3y^2 - 10x^2y^3$

[13] \_\_\_\_\_

14. Factor by grouping:  $21t^2 + 34t + 8$

[A]  $(3t+4)(7t+2)$  [B]  $(3t-4)(7t+2)$

[C]  $(3t-4)(7t-2)$  [D]  $(3t+4)(7t-2)$

[14] \_\_\_\_\_

15. Factor completely by grouping:  $x^2 - 5x + 6x - 30$

[15] \_\_\_\_\_

Factor:

16.  $9a^2 + 12a + 4$

[A]  $(3a - 2)^2$                       [B]  $(3a + 2)(3a - 2)$

[C]  $(3a + 2)^2$                       [D]  $(3a - 4)(3a + 1)$

[16] \_\_\_\_\_

17.  $9h^2 + 12h + 4$

[17] \_\_\_\_\_

18.  $x^2 - 25$

[18] \_\_\_\_\_

19.  $25x^2 - 16y^2$

[19] \_\_\_\_\_

20.  $49x^2 - 9y^2$

[A]  $(7x + 3y)^2$                       [B]  $(7x + 3y)(7x - 3y)$

[C]  $(7x - 3y)^2$                       [D]  $(7x + 3)(7x - 3)$

[20] \_\_\_\_\_