key

SD308 Algebra 1 Unit Assessment Retake Request Form

1. How many terms does the following polynomial have? $3m^4 - 8m^2 - 7m + 2$ **(4)**

2. Classify the following polynomial by degree and number of terms. $-4x + 2x^2$

   Quadratic   binomial

Simplify the following expressions.

3. $-2x(x+7) + 5x(2x-3)$

   $-2x^2 - 14x + 10x^2 - 15x$

   $8x^2 - 29x$

4. $3(x^2-4) - 5x(x-1)$

   $3x^2 - 12 - 5x^2 + 5x$

   $-2x^2 + 5x - 12$

5. $5x^2 - 3x + 12 - (2x^2 - 3x - 7)$

   $3x^2 + 19$

6. $(4x^3 - x^2 + 2x - 1) + (8x^2 - 5x - 11)$

   $4x^3 + 7x^2 - 3x - 12$

7. Write an equivalent expression to $(x-8)^2$ *(x-8)*

   $x^2 - 16x + 64$

8. What is the product of $(n-7)$ and $(n+6)$?

   $n^2 - n - 42$

Simplify to find the product of the following expressions.

9. $-2m(3m^2 - 5m + 2)$

   $-6m^3 + 10m^2 - 4m$

10. $(x+2)(3x^2 + x - 5)$

    $3x^3 + x^2 - 5x$
    $+ \quad\quad 6x^2 + 2x - 10$

    $3x^3 + 7x^2 - 3x - 10$

11. $(2y+3)(5y-1)$

    $10y^2 + 13y - 3$

12. $7a^4(2a^2 - a + 4)$

    $14a^6 - 7a^5$

13. $(x-4)(x+4)$

    $x^2 - 16$

14. $(y+5)(y+5)$

    $y^2 + 10y + 25$

15. Using the diagram below, write an expression that represents the area of the rectangle in square inches.

    $(x+4)$ in

    $(3x-2)$ in

    $3x^2 + 10x - 8$

A1 Unit 5 Assessment Retake Review Sheet

16. A rectangle has an area of $2x^2 - 5x - 3$, identify its length and width.

$$(2x+1)(x-3)$$

Factor the following polynomials.

17. $12x^2y - 8xy^2 + 16xy$

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

18. $a^3 - 2a^2 - 3a$

19. $3x^2 - 13x - 10$

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

20. $25x^2 + 20x + 4$

$$(5x+2)^2$$

21. $3x^2 - 27$

$$3(x^2 - 9)$$
$$3(x+3)(x-3)$$

22. $-2x^2 + 10x - 12$

$$-2(x^2 - 5x + 6)$$
$$-2(x-3)(x-2)$$

23. Your teacher used the following method to solve $4x^2 - 36 = 0$

Add 36 to both sides to get	$4x^2 = 36$
Divide 4 to both sides to get	$x^2 = 9$
Take square roots of both sides to get	$x = \pm 3$

Using this method, what is the solution to $2x^2 - 8 = 0$?

$$\pm 2$$

24. Write an equation in factored form that has roots of -3 and 5.

$$(x+3)(x-5) = 0$$

Solve the following quadratic equations.

25. $x^2 - 12x + 20 = 0$

$$(x-2)(x-10) = 0$$
$$2, 10$$

26. $3x^2 + 13x + 4 = 0$

$$(3x+1)(x+4) = 0$$
$$-4, -\tfrac{1}{3}$$

27. $x^2 - 4x + 4 = 0$

$$(x-2)^2 = 0$$
$$2$$

28. $x^2 + x - 30 = 0$

$$(x+6)(x-5) = 0$$
$$5, -6$$