

Math 2 Unit 9 “Ticket to Retake”

Name _____

#1-3 Simplify:

1. $5x^3 + 5x^3$

2. $(3x + 8y) - (4x + 8y)$

3. $(6x + 11y) - (5x + 11y)$

#4-6 Multiply

4. $2(3x + 4)(2x + 7)$

5. $(x + 3)^2$

6. $(x + 7)^2$

7. The perimeter of a hexagon is $19m - 2$. Four sides have the following lengths:
 $3m$, $5m - 4$, $m + 1$, and $3m - 6$. What are two pairs that could be the two missing sides.

8. The perimeter of a hexagon is $15m - 1$. Four sides have the following lengths:
 $4m$, $2m - 5$, $m + 6$, and $5m - 8$. What are two pairs that could be the two missing sides.

9. Simplify: $7x^3y(-6x^5y)$

10. Simplify. Write answer in Standard Form. $(3x - 5)(5x + 2)$

11. Simplify. Write answer in Standard Form. $(2x + 1)(x - 3)(x + 2)$

12. Simplify. Write answer in Standard Form. $(3x + 1)(x^2 + 5x - 6)$.

13. A square has side length $(3x - 2)$ ft. What is the area of the square?
(Be sure to include the units in your answer.)

#14-22 Factor Completely

14. $4x^3y - 64x^2y^2$

15. $6x^5y - 27x^2y^2$

16. $4x^2 - 25y^2$

17. $49x^2 - 9y^2$

18. $x^2 + 11x + 28$

19. $x^2 - 10x - 24$

20. $m^2 + 6m - 16$

21. $4x^2 + 11x + 7$

22. $6y^2 - 11y + 4$

23. A shipping box in the shape of a rectangular prism has a volume of $2x^3 + 7x^2 + 5x$. What are three linear expressions that can represent possible dimensions of the shipping box?