**ALGEBRA ONE NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**MULTIPLYING BINOMIALS PRACTICE**

Find each product

1. (n – 12)2 2. (12n)2

* What is the difference in number 1 and number 2? Why do we do them differently?

3. (9x + 3)(9x +3) 4. (9x + 3)(9x -3)

5. The answer for number 3 is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ while the answer for number 4 is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Why does this happen?

6. (4 – 6h)2 7. (m + 7n)2

8. (3a2 – b2)2 9. (3a2 – b2)(3a2 + b2)

10. (x – 2)(3x2 – 5x + 4) HINT: distribute the x and the -2 to everything inside the 2nd parentheses

Solve.

11. -x(x - 6) + 16 = 5(3x – 4) – x2

12. Sarah is multiplying monomials using an area model. Fill in the missing values for her.

\_\_\_\_\_ \_\_\_\_\_

|  |  |
| --- | --- |
|  | \_\_\_\_\_ |
| 24x | 30 |

x

6

16. The length of a rectangle is three times the width of the rectangle. If the width of the rectangle is units, what is the area of the rectangle?

17. Write the expression (in simplified form) that represents the shaded region of the rectangle, where the larger rectangle has side lengths of 4x and x+2 and the smaller rectangle has side lengths of x and x+1.

18. The base of a triangle is represented by and the height is represented by Draw a picture of the scenario and choose the expression below that represents the area of the triangle.

19. Fill in the blank.

( \_\_\_ )(