

Algebra 1 Honors

- Write down your homework for the night.
- Make sure you have your composition book and homework from last night at your desk.
- Answer the following question on your **TUESDAY Bellwork** section:

Label the following as an expression, equation, or inequality and translate it.

"five times the sum of a number and 23"

$$5(x + 23)$$

Expression

$$5x + 23$$

9. $-q^2 - r^2 + 3s$ if $q = 9, r = -6, s = -20$

$$-(9)^2 - (-6)^2 + 3(-20)$$

$$-81 - 36 - 60 \leftarrow + -60$$

$$-117 - 60 = \boxed{-177}$$

12. $-a^2 + 7b^4 - 2c^3$ if $a = -4, b = -2, c = -3$

$$-(-4)^2 + 7(-2)^4 - 2(-3)^3$$

$$-16 + 7(16) - 2(-27)$$

$$-16 + 112 + 54$$

$$96 + 54 = \boxed{150}$$

Directions: Translate each expression.

1. "the sum of a number and 4."

$$n + 4$$

3. "the product of a number and 5."

$$5n$$

5. "a number squared increased by 1"

$$n^2 + 1$$

Directions: Translate each equation. **DO NOT**

7. "twice a number divided by 6 is 42."

$$\frac{2n}{6} = 42$$

9. "four times the difference of a number and 7 is 32"

$$4(n - 7) = 32$$

11. "ten increased by the quotient of a number and 2 is -15"

$$10 + \frac{n}{2} = -15$$

Directions: Translate each inequality.

13. "a number less than 15"

$$n < 15$$

15. "a number that is at least 90"

$$n \geq 90$$

17. "a number that is no more than 20"

$$n \leq 20$$

19. "a minimum number of 10"

$$n \geq 10$$

Parts of an Expression

TERMS

THE PARTS OF AN
EXPRESSION THAT
ARE BEING ADDED
OR SUBTRACTED
ARE TERMS.

UNDERLINE EACH
TERM.

$$\underline{x^3} + \underline{2x^2} - \underline{5x} + \underline{4}$$

$$\underline{5xy} - \underline{4x^2} - \underline{y}$$

$$\underline{4ab^2} + \overset{+ -2b}{3} - \underline{2b} + \underline{a}$$

COEFFICIENTS

IF A TERM HAS A VARIABLE, THE NUMBER IN FRONT OF THE VARIABLE IS THE COEFFICIENT.

HIGHLIGHT EACH COEFFICIENT.

EACH COEFFICIENT TAKES THE SIGN IN FRONT OF IT.
IF THE COEFFICIENT IS NOT WRITTEN, IT IS AN INVISIBLE 1.

$$1x^3 + 2x^2 - 5x + 4$$

$$5xy - 4x^2 - 1y$$

$$4ab^2 + 3 - 2b + 1a$$

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CONSTANTS

IF A TERM HAS NO VARIABLES, IT IS A CONSTANT.

$$x^3 + 2x^2 - 5x + 4$$

THE CONSTANT TAKES THE SIGN IN FRONT OF IT.

$$5xy - 4x^2 - y$$

None

CIRCLE THE CONSTANT, IF IT EXISTS.

$$4ab^2 + 3 - 2b + a$$

Translate each statement into algebra.

THEN...

- Underline each term.
- Highlight each coefficient.
- Circle each constant.

Nine less than two times a number is no less than the sum of five times the number and two.

$$2x - 9 \geq 5x + 2$$

The ratio of a number and eighteen is equal to the difference of the number squared and five.

Eleven more than four times a number squared.

The difference of seven and a number is not equal to the sum of twice the number and two.

Make your own!