

Try your best. Show all your work. Circle your final answer.

1. Write a numerical expression that represents *four less than the difference of 14.5 and 9*.

2. Evaluate the expression.

$$7 - 2(3^3 + 1) \div 8$$

3. The table shows the number of yards the Cardinal football team averages by running each type of play.

Play Type	Average Yards Gained
Run Right	2.4
Run Left	3.7
Short Pass	7.2
Medium Pass	11.3
Deep Pass	19.5

In their first possession, the Cardinals ran to the right twice, ran to the left three times, and threw a medium pass.

- a) Write a numerical to estimate how many yards the Cardinals gained all together.

- b) Evaluate the numerical expression

4. Which algebraic expression represents “five times the difference of eight and n ?”

- A. $5n-8$
- B. $8n-5$
- C. $5(8-n)$
- D. $8-5n$
- E. $5-(8+n)$

5. Luke does odd jobs.

Job	Pay
Mowing Lawns	\$25.50 each
Raking Leaves	\$7.50 each

- a) Write an algebraic expression showing the total Luke earns if he mows m lawns and rakes p piles.

- b) Evaluate if he mows 4 lawns and rakes 3 piles.

6. Simplify.

$$4(-3y^2 - 3y + 8)$$

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7. A gym charges a monthly fee of \$20 plus \$4 for each class.

a) Write an expression for the cost if a person attends c classes in a month.

b) Evaluate the expression to find the total cost if the person attends five classes in a month.

c) What is the total cost if they attend twelve classes in a month?

8. What is the value of the following expression when $x = -2$? **Yes, those ARE absolute value bars.*

$$2^4 + \frac{1}{4}|9x + 2|$$

9. Maria evaluated the expression $7 - 3(125 + 1) \div 6$ incorrectly. Her work is shown below. **Circle the step in which she made her mistake.**

Step 1: $7 - 3(125 + 1) \div 6$

Step 2: $7 - 3(126) \div 6$

Step 3: $4(126) \div 6$

Step 4: $504 \div 6$

Step 5: 84

10. Justifying the Steps

Complete the two-column table below by filling in the missing algebraic steps or the corresponding properties that justify each step in simplifying the expression.

Given Expression: $7(2x + 3) - 14x$

Statements (Algebraic Steps)	Reasons (Justification)
1. $7(2x + 3) - 14x$	1. Given
2.	2. Distributive Property
3. $(21 + 14x) - 14x$	3.
4. $21 + (14x - 14x)$	4.
5.	5. Additive Inverse Property
6. 21	6.