

Mid-Chapter Quiz

Write a verbal expression for each algebraic expression.

1. $21 - x^3$

2. $3m^5 + 9$

Write the algebraic expression for each verbal expression.

3. five more than s squared

4. four times y to the fourth power

5. **CAR RENTAL** The XYZ Car Rental Agency charges a flat rate of \$39 per day plus \$0.47 per mile driven. Write an algebraic expression for the rental cost of a car for x days that is driven y miles.

Evaluate each expression.

6. $24 \div 3 - 2 \cdot 3$

8. $4(3 + 9)$

10. $\frac{40 - 2^3}{4 + 3(2^2)}$

11. **AMUSEMENT PARK** The costs tickets to a local amusement park are shown. Write and evaluate an expression to find the total cost for 5 adults and 8 children.



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12. **MULTIPLE CHOICE** Write an algebraic expression to represent the perimeter of the rectangle shown below. Then evaluate it to find the perimeter when $w = 8$ cm.



- A 37 cm
- B 232 cm
- C 74 cm
- D 45 cm

Use the Distributive Property to rewrite each expression. Then evaluate.

20. $8(7 - 4)$

SOLUTION:

$$\begin{aligned} 8(7 - 4) &= 8(7) - 8(4) \\ &= 56 - 32 \\ &= 24 \end{aligned}$$

Use the Distributive Property to rewrite each expression. Then simplify.

23. $-5(3m - 2)$

SOLUTION:

$$\begin{aligned} -5(3m - 2) &= -5(3m) - (-5)(2) \\ &= -5(3m) - (-10) \\ &= -15m + 10 \end{aligned}$$

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24. **CAR WASH** A car wash chain has three locations. Use the information in the table below to write and evaluate an expression to estimate the total number of car washes sold over a 4-day period.

Location	Daily Car Washes
Location 1	145
Location 2	211
Location 3	184

