

3.1 Exercises



Vocabulary and Concept Check

1. **WHICH ONE DOESN'T BELONG?** Which expression does *not* belong with the other three? Explain your reasoning.

$2x + 1$

$5w \cdot c$

$3(4) + 5$

$y \div z$

2. **NUMBER SENSE** Which step in the order of operations is first? second? third? fourth?

Add or subtract from left to right.

Multiply or divide from left to right.

Evaluate terms with exponents.

Perform operations in parentheses.

3. **NUMBER SENSE** Will the value of the expression $20 - x$ *increase*, *decrease*, or *stay the same* as x increases? Explain.



Terms: $2, x^2, y$
Coefficient: 2
Constant: none

14. **ERROR ANALYSIS** Describe and correct the error in identifying the terms, coefficients, and constants in the algebraic expression $2x^2y$.



$$3 \cdot n \cdot n \cdot n \cdot n = 4n^3$$

22. **ERROR ANALYSIS** Describe and correct the error in writing the product using exponents.

39. **PLANT** After m months, the height of a plant is $10 + 3m$ millimeters. How tall is the plant after eight months? three years?

8 months: _____

3 years: _____

42. **FALLING OBJECT** An object falls $16t^2$ feet in t seconds. You drop a rock from a bridge that is 75 feet above the water. Will the rock hit the water in 2 seconds? Explain.

ALGEBRA Evaluate the expression when $a = 10$, $b = 9$, and $c = 4$.

44. $4c - 7.8$

46. $\frac{24}{b} + 8$

48. $a^2 - 18$

50. $bc + 12.3$



Fair Game Review What you learned in previous grades & lessons

Find the value of the power. (Section 1.2)

56. 3^5

57. 8^3

58. 7^4

59. 2^8

60. **MULTIPLE CHOICE** Which numbers have a least common multiple of 24?
(Section 1.6)

(A) 4, 6

(B) 2, 22

(C) 3, 8

(D) 6, 12

56. _____

57. _____

58. _____

59. _____

