

1.7.22 Constants, Var, Exp Order Operations 3

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Evaluate.

1) x^3y for $x = 3, y = 4$ 1) _____
 A) 108 B) 192 C) 31 D) 36

2) x^3 for $x = 4, y = 5$ 2) _____
 A) 12 B) 8 C) 64 D) 125

3) 6^5 3) _____
 A) 15,625 B) 30 C) 7776 D) 46,656

4) $x^3 - 3 + y$ for $x = 3, y = 9$ 4) _____
 A) 39 B) 33 C) 15 D) 18

5) 5^2 5) _____
 A) 25 B) 36 C) 10 D) 32

6) $\left(\frac{2}{7}\right)^2$ 6) _____
 A) $\frac{4}{49}$ B) $\frac{4}{7}$ C) $\frac{2}{49}$ D) $\frac{4}{14}$

Write the following using exponents.

7) $(b + c)(b + c)(b + c)$ 7) _____
 A) $(b + c)^3$ B) $b^3 + c^3$ C) $3b + 3c$ D) $3(b + c)$

8) $x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x$ 8) _____
 A) 7 B) $7(x)$ C) 7^x D) x^7

9) $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7$ 9) _____
 A) 6^7 B) 7^5 C) 7^6 D) 42

Solve the problem by finding and evaluating an appropriate expression.

10) Eight fraternity brothers agree to split the cost equally for 4 pizzas that cost \$8.99 each and 8 soft drinks that cost 99 cents each. Find the amount (to the nearest cent) that each pays. 10) _____
 A) \$5.99 B) \$5.49 C) \$43.88 D) \$103.50

11) An automobile lease company offers a plan where the customer pays \$1000 down and \$299 per month for 4 years. Find the total cost of leasing the car. 11) _____
 A) \$1303 B) \$62,352 C) \$2196 D) \$15,352

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- 12) Tara leased a car with the following terms: she agreed to pay \$1400 down, \$499 per month for 24 months, and 20 cents per mile for all mileage in excess of 20,000. When she returned the car at the end of the lease period, it had 35,000 miles on the odometer. Find the total amount Tara paid for the lease. 12) _____
- A) \$17,376 B) \$16,376 C) \$313,376 D) \$20,376

Simplify.

- 13) $240 \div 8 - 4$ 13) _____
 A) 228 B) 26 C) 236 D) 60
- 14) $9 \cdot 8 - (13 - 7) \div 3 - (8 - 6)$ 14) _____
 A) 20 B) 14 C) 68 D) 56
- 15) $330 \div 11 - (4 + 2)$ 15) _____
 A) 24 B) 26 C) 66 D) 28
- 16) $60 \div (6 \div 2)$ 16) _____
 A) 57 B) 5 C) 10 D) 20
- 17) $5 \cdot 5 - 2$ 17) _____
 A) 50 B) 27 C) 23 D) 15
- 18) $70 - 4 \cdot 3 \cdot 2$ 18) _____
 A) 61 B) 116 C) 46 D) 396

Write the following as multiplication.

- 19) $(6x)^3$ 19) _____
 A) $6 \cdot x \cdot x \cdot x$ B) $6x + 6x + 6x$ C) $18 \cdot 3x$ D) $6x \cdot 6x \cdot 6x$
- 20) t^4 20) _____
 A) $t + t + t + t$ B) $t + 4$ C) $\frac{t}{4}$ D) $t \cdot t \cdot t \cdot t$
- 21) $5z^4$ 21) _____
 A) $5 + z + z + z + z$ B) $5z \cdot 5z \cdot 5z \cdot 5z$ C) $20 \cdot 4z$ D) $5 \cdot z \cdot z \cdot z \cdot z$

Simplify by using the order of operations.

- 22) $48 \div 8 + 45 \div 9$ 22) _____
 A) 5.67 B) 60 C) 61 D) 11
- 23) $8 \cdot 6 - 5 \cdot 3 + 7 \cdot 2$ 23) _____
 A) 62 B) -62 C) -47 D) 47
- 24) $13 \cdot 9 + 2 \cdot 12$ 24) _____
 A) 141 B) 1716 C) 1428 D) 429

Answer Key

Testname: 1.7.22 CON VAR EXP ORDEROFOP 3

- 1) A
- 2) C
- 3) C
- 4) B
- 5) A
- 6) A
- 7) A
- 8) D
- 9) C
- 10) B
- 11) D
- 12) B
- 13) B
- 14) C
- 15) A
- 16) D
- 17) C
- 18) C
- 19) D
- 20) D
- 21) D
- 22) D
- 23) D
- 24) A