Name _____ Date _____ Class _____

MODULE 7

Expressions

Quiz

Choose the best answer.

1. Which expression is equal to 7^5?
   A 7 • 5
   B 5 • 5 • 5 • 5 • 5 • 5 • 5
   C 7 • 7 • 7 • 7 • 7
   D 7 • 5 • 7 • 5
2. Which expression is the same as 4 • 4 • 4 • 4?
   F 3 • 4 H 4 • 4
   G 3^4 J 4^4
3. What is the value of 4^3?
   A 12 C 64
   B 43 D 81
4. Kris sends an email to 5 people and each of those people will send the email to 5 more people, and so on. Which expression shows the number of people that will receive the email after the third round?
   F 5 • 3 H 5^3
   G 3^5 J 3 • 5
5. Choose the correct term corresponding to the statement:
   For three or more numbers, their sum or their product is always the same, regardless of their grouping.
   A Associative Property
   B Commutative Property
   C Exponent
   D Distributive Property
6. Choose the correct term corresponding to the statement: Two or more numbers can be added or multiplied in any order without changing the sum or product.
   F Associative Property
   G Commutative Property
   H Exponent
   J Distributive Property
7. Students at a junior high school play a game called “pass it along.” In this game, one student picks a phrase and tells it to 3 other students. Each of these students then tells 3 more students. How many students will be told the phrase during round 4?
   A 12 students C 64 students
   B 81 students D 41 students
8. In round 1 of a phone tree, a person calls 4 people. In round 2, each person in round 1 calls 4 more people, and so on. How many calls will be made during round 5?
   F 1,024 calls H 625 calls
   G 512 calls J 20 calls
9. Simplify the expression 25 + 24 ÷ 4.
   A 31 C 16
   B 47 D 12

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MODULE 7

Expressions

Quiz, continued

Choose the best answer.

10. Simplify the expression

$63 \div (1 + 8) \cdot 2^3 - 5$.

F 7 H 51

G 37 J 21

11. Sally bought 4 boxes of pens for $6 each and 7 packages of paper for $7 each. Simplify $4 \times 6 + 7 \times 7$ to find the amount Sally spent on pens and paper.

A $360 C $73

B $140 D $49

12. A school is having a fund-raiser in which the students sell calendars and raffle tickets. Each calendar costs $18. Each raffle ticket costs $7. If a student sold 7 calendars and 5 raffle tickets, simplify $7 \times 18 + 5 \times 7$ to find how much money the student should collect.

F $1,127 H $161

G $139 J $126

13. Simplify 35 + 31 + 55 + 29 using mental math.

A 160 C 150

B 90 D 75

14. Find the value of 3^5.

F 125 H 243

G 25 J 81

15. Write the expression $7 \times 7 \times 7 \times 7$ in exponential form.

A 7^4 C 5^7

B 16,807 D 7^5

Free Response

16. A log splitter splits a log into two pieces. After a log is split, each of the pieces runs through the log splitter again. After the log pieces have run through the splitter 5 times, how many pieces of log will there be?

_____

17. Simplify the expression

$41 + 4^3 \cdot 4 - (6 \cdot 2)$.

_____

18. Consider the expression: $(28 \div 4) \cdot 5 - 6 + 4^2$. Explain the order of operations you would use to simplify this expression. Then simplify it.

_____

_____

_____

_____

_____

19. Explain how you would use mental math to find the sum 27 + 49 + 16 + 11 + 33 + 54.

_____

_____

_____

_____

_____

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Unit 3 Expressions

Answers

Module 7 Quiz

1. C
2. J
3. C
4. H
5. A
6. G
7. B
8. F
9. A
10. H
11. C
12. H
13. C
14. H
15. A
16. 32 pieces
17. 285
18. Perform the operation within the parentheses: (28 ÷ 4).

    28 ÷ 4 = 7

    Find the value of the number with the exponent: 4^2.

    $4^2 = 16$

    Multiply the result of (28 ÷ 4) by 5.

    7 × 5 = 35

    Subtract 6 from the result of (28 ÷ 4) • 5.

    35 – 6 = 29

    Add the result of 4^2 to the result of (28 ÷ 4) • 5 – 6.

    29 + 16 = 45
19. Look for sums that are multiples of 10.Use the Commutative Property to reorder the expression so all sums that are multiples of 10 are paired together: 27 + 33 + 49 + 11 + 16 + 54.

    Use the Associative Property to make groups of compatible numbers:

    (27 + 33) + (49 + 11) + (16 + 54)

    Use mental math to add:

    60 + 60 + 70 = 190.

Module 8 Quiz

1. B
2. H
3. C
4. J
5. A
6. H
7. B
8. H
9. D
10. G
11. A
12. H
13. B
14. G
15. 35*d*
16. Yes, they are equal.
17. Possible answers: the quotient of p and 7; *p* divided by 7
18. 2 – *z*

Unit 3 Test A

1. C
2. C
3. A
4. B
5. A
6. C
7. C
8. B
9. B

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