**LESSON 21—NOTES**

**WRITING EXPRESSIONS**

**EXPRESSIONS**—NUMBER PHRASES; THEY DON’T CONTAIN THE EQUAL SIGN.

**VARIABLE**—A LETTER THAT REPRESENTS A NUMBER.

**KEY WORDS**

|  |  |
| --- | --- |
| **ADDING:** | **SUBTRACTING:** |
| **MULTIPLYING:** | **DIVIDING:** |

EX: THE SUM OF 5 AND A NUMBER.

EX: 7 MORE THAN A NUMBER.

EX: THE DIFFERENCE BETWEEN 12 AND A NUMBER.

EX: A NUMBER LESS 4.

EX: THE PRODUCT OF 8 AND A NUMBER

EX: THE QUOTIENT OF 12 AND A NUMBER.

EX: 5 MORE THAN 3 TIMES A NUMBER.

**EXAMPLES:**

**write the expression that represents the word expression.**

1. The quotient of n and 3 2. 3 more than n

3. the product of 3 and n 4. n decreased by 3

5. 3 less than n 6. the product of n and 3

7. n increased by 3 8. one-third times n

**write a word phrase for each algebraic expression.**

9. 4n 10. 2 + n

11. n – 5 12. n ÷ 3

13. n + 9 14. $^{n}/\_{2}$

**LESSON 21—NOTES—STUDENT COPY**

**WRITING EXPRESSIONS**

**EXPRESSIONS**—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**VARIABLE**—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Class\_\_\_\_\_**

**LESSON 21: WRITING EXPRESSIONS**

**NWNC!! write the letter and answer.**

1. Vern is about 2.1 times as tall as his little brother. \_\_\_\_\_\_\_\_\_\_\_\_

 Given B, the height of Vern’s little brother, which

 equation can be used to find V, Vern’s height.

A. V = 2.1 ÷ B B. V = B ÷ 2.1

 C. V = 2.1 + B D. V = 2.1B

2. The weight of a blue whale is 30 tons less than \_\_\_\_\_\_\_\_\_\_\_\_

 4 times the weight of a right whale. If a right whale

 weighs 40 tons, which of these expressions best

 represents the weight of a blue whale?

 A. 30 – 4(40) B. 4(40) – 30

 C. 4 + 40 – 30 D. 30 – 4 + 40

3. In 1911, the baseball player Ty Cobb had 28 more \_\_\_\_\_\_\_\_\_\_\_\_

 RBI’s than he had in 1907. Ty Cobb had 144 RBI’s

 in 1911. Which expression best represents how

 many RBI’s he had in 1907?

 A. 144 + 28 B. 144 – 28

 C. 144 x 28 D. 144 ÷ 28

4. Neville started hiking a trail at an elevation of 230 ft \_\_\_\_\_\_\_\_\_\_\_\_

 above sea level. He gained 80 ft in elevation every

 hour. Which equation best represents Neville’s

 elevation, ***h***, after ***t*** hours of hiking?

 A. h = 310t B. h = 310 + t

 C. h = 230t + 80 D. h = 80t + 230

5. The Davila family drove about 2,100 miles when they \_\_\_\_\_\_\_\_\_\_\_\_

 were on vacation. The family drove between 150 and

 250 miles each day. A reasonable total number of

 days that the family spent on vacation is…….

 A. 5 days B. 10 days

 C. 15 days D. 18 days

**For each pair of similar figures, find the length, X.**

6. 21cm 7. x

 20cm x 20m

 60m

 14m

 35cm

 \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

**find the square root of each:**

8. = \_\_\_\_\_\_\_ 9. = \_\_\_\_\_ 10.  = \_\_\_\_\_\_

**find the length of each side, S.**

11. 12. 13.

|  |
| --- |
| Area144 in2 |

 S = \_\_\_\_\_\_ S = \_\_\_\_\_\_ S = \_\_\_\_\_\_\_

Area

100 m2

Area

9 cm2

**Solve:**

14. 53 = \_\_\_\_\_\_\_ 15. 24 = \_\_\_\_\_\_\_\_ 16. 92 = \_\_\_\_\_\_\_\_\_

**Fill in the following chart:**

|  |  |  |  |
| --- | --- | --- | --- |
| PROBLEM | DECIMAL | FRACTION | PERCENT |
| 17. | 0.25 |  |  |
| 18. |  | 2/5 |  |
| 19. |  |  | 85% |

20. Which expression can be used to find the value of the nth term in the sequence?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| N | 1 | 2 | 3 | 4 | N |
| Value | 5 | 13 | 21 | 29 |  |

A. 5n B. 5n + 3 C. 8n – 3 D. 6n + 3