Name: _____

Writing Algebraic Expressions

1. How would you express the product of q and 52 as a mathematical expression?

1. $52q$
2. $52 + q$
3. $52 \div q$
4. $52 - q$

2. Match the sentence with an appropriate variable expression: Sal pays 5 dollars for every tee shirt he buys.

1. $5 + s$
2. $5s$
3. $s \div 5$
4. $5 + s$

3. Match the sentence with an appropriate variable expression:

Marty had 100 baseball cards and gave away a certain amount of them.

1. x - 100
2. 100 - x
3. $100x$
4. $100 \div x$

4. Match the sentence with an appropriate variable expression:

The number of miles that a plane can travel on 50 gallons of fuel.

1. $x + 50$
2. $50x$
3. $50 \div x$
4. 50 - x

5. Match the sentence with an appropriate variable expression:

Jeremy's family drove 30 miles on Monday and then drove a certain number of miles on Tuesday. What is the total amount that Jeremy's family drove?

1. $30 + m$
2. $30m$
3. $30 \div m$
4. $30m + 30$

6. Which mathematical expression represents 15 decreased by a number?

1. $15 \div n$
2. $15n$
3. $15 + n$
4. $15 - n$

7. Which is the sum of h and 13 as a mathematical expression?

1. $h \div 13$
2. $h + 13$
3. $h - 13$
4. $h(13)$

8. Which phrase does *not* represent $12 + n$?

1. The sum of 12 and a number.
2. The total of 12 and a number.
3. 12 + a number.
4. The product of 12 and a number.

9. Which of the following mathematical expressions represents the quotient of m and 15?

1. $m \div 15$
2. $15m$
3. $15 \div m$
4. $15 \times m$

10. Marie currently has a collection of 58 stamps. If she buys s stamps each week for w weeks, which expression represents the total number of stamps she will have?

1. $58sw$
2. $58 + sw$
3. $58s + w$
4. $58 + s + w$

11. Which variable expression is equal to 12 increased by a number?

1. $x - 12$
2. $12 + x$
3. $12x$
4. $12 \div x$

12. If Angelina's weekly allowance is d dollars, which expression represents her allowance, in dollars, for x weeks?

1. dx
2. $7dx$
3. $x + 7d$
4. $\frac{d}{x}$

13. A piece of construction equipment uses two gallons of fuel per hour. Match the sentence with an appropriate variable expression: the amount of fuel it uses for a given number of hours.

1. $2 - h$
2. $h + 2$
3. $h \div 2$
4. $2h$

14. What is the value of $\frac{x + y \times 2}{y}$ when $x = 3$ and $y = 1$?

Answer:

15. Evaluate the expression $(x^2 + y) - x$ when $x = 2$, and $y = 6$.

Answer:

16. Find $7 \times q$ if $q = 2.45$

Answer:

17. If $g = 4.5$ and $h = 6$, then what is the value of $h - g$?

Answer:

18. Look at each expression. Does it represent the variable expression **$2(n + 6)$**?

Select **Yes** or **No** for expressions A – D.

A. Twice a number increased by 6	○ Yes	○ No
B. Twice the sum of a number and 6	○ Yes	○ No
C. Two times the quantity of a number plus 6	○ Yes	○ No
D. The product of two and the quantity of 6 more than a number	○ Yes	○ No

19. Which expression represents "5 less than twice x"?

1. $2x - 5$
2. $5 - 2x$
3. $2(5 - x)$
4. $2(x - 5)$

20. Which verbal expression is represented by $2(x + 4)$?

1. twice the sum of a number and four
2. the sum of two times a number and four
3. two times the difference of a number and four
4. twice the product of a number and four

21. Marcy determined that her father's age is four less than three times her age. If x represents Marcy's age, which expression represents her father's age?

1. $3x - 4$
2. $3(x - 4)$
3. $4x - 3$
4. $4 - 3x$

22. What is the correct verbal expression for the algebraic expression $\frac{1}{2}x - 7$?

1. One-half a number decreased by −7
2. One-half a number increased by 7
3. Twice a number increased by 7
4. One-half a number decreased by 7

23. How would you write $\frac{1}{2}$ of a number increased by 5 times that same number as a variable expression?

1. $\frac{1}{2}y(5)$
2. $5y(\frac{1}{2})$
3. $5y + 2y$
4. $\frac{1}{2}y + 5y$

24. Tara buys two items that cost d dollars each. She gives the cashier $20. Which expression represents the change she should receive?

1. $20 - 2d$
2. $20 - d$
3. $20 + 2d$
4. $2d - 20$