

Name _____

Using Variables to Write Expressions

Write each algebraic expression.

1. 5 more than a number s _____
2. twice a number k _____
3. 17 less than a number g _____
4. the product of 8 and a number p _____
5. 84 divided by a number z _____
6. the sum of a number t and 31 _____
7. 7 more tickets than a number m _____
8. 21 fewer stars than three times a number h _____
9. Cassie has \$12. She buys a balloon. Which expression shows how much money Cassie has left?
 - A $b + 12$
 - B $12 - b$
 - C $12b$
 - D $b \div 12$
10. A theater has main floor and box seating. The main floor can seat 14 people in each row. Another 20 people can sit in the box seats. Which expression shows how many people can be seated in the theater?
 - A $20f - 14$
 - B $20f + 14$
 - C $14f - 20$
 - D $14f + 20$
11. Heather bought enough shells to make x necklaces. Each necklace holds 16 shells. Heather has made 10 necklaces. Is $16x + 10$ a reasonable way to represent the number of shells that Heather has left to make necklaces with? Explain your answer.

Using Variables to Write Expressions

A variable represents a quantity that can change. To use a variable to write an algebraic expression for a situation, you need to decide which operation is appropriate for the situation. To help you, some words and phrases are listed below.

Word phrase	Variable	Operation	Algebraic Expression
ten more than a number b	b	Addition	$b + 10$
the sum of 8 and a number c	c		$8 + c$
five less than a number d	d	Subtraction	$d - 5$
15 decreased by a number e	e		$15 - e$
the product of 8 and a number f	f	Multiplication	$8f$
19 times a number g	g		$19g$
a number h divided by 2	h	Division	$h \div 2$
a number i divided into 50	i		$50 \div i$

Write each algebraic expression.

1. a number k **divided by** 6

Identify the operation. _____ Write the expression. _____

2. the **sum** of 8 and a number q _____ 3. 5 **times** a number b _____

4. a number j **divided into** 3 _____ 5. 7 **less than** a number d _____

6. n fewer carrots than 12 _____ 7. w lunches at \$9 each _____

8. A touchdown scores 6 points. Write an algebraic expression to represent the number of points the Hawks will score from touchdowns.

Identify the operation _____ Write the expression. _____

9. Write an algebraic expression to represent the situation below. Explain how the expression relates to the situation.

Some children share 6 oranges equally among themselves.
