

Expressions and Variables

An expression has numbers and operation signs. It does not have an equal sign.

Use these words to help you write expressions.

Addition: more, sum, plus, added, gave

Subtraction: less, minus, loss, difference, spent, left

John had 12 marbles. He won 7 more.

Mary had \$10. She spent \$3.

Translate this into an expression.

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Clue Word: more $12 + 7$

Clue Word: spent $10 - 3$

An expression may have a variable. A variable is a letter or symbol that can stand for one or more numbers.

Peter caught 2 fish in the morning. In the afternoon, he caught some more.

Susan had 4 sharpened pencils. Then she broke the point off of some of them.

Translate this into an expression.

Translate this into an expression.

Clue Word: more $2 + n$

Clue Word: left $4 - n$

Write the clues. Then write an expression using n for the unknown number. Explain what the variable represents.

1. The temperature dropped 7 degrees and then went up 4 degrees.

Clue Words: _____

2. When the train stopped, 5 people boarded and 2 got off.

Clue Words: _____

3. Steven wrote 8 pages for homework. The dog ate some of them.

Clue Words: _____

4. Gabriel collected 7 stones. John gave some more stones.

Clue Words: _____

Expressions and Variables

Write an expression. Find the value.

1. Mark had 6 books. He bought 5 more.

2. Sara baked 9 cupcakes. Her sister ate 3 of them.

3. Lillian got 3 letters in the mail. The next day she got 7 more.

4. Luke had 15 grapes in his lunch. He gave away 4 of them.

Write an expression with a variable. Explain what the variable represents.

5. TJ had 14 pet fish. He bought some more.

6. Alex picked 25 apples. He ate some.

Find the value of the expression.

7. $n + 37$ if n is 16

8. $234 + n$ if n is 66

For 9–10, choose the expression for each situation.

9. Joy rode down 5 floors on the elevator, and then rode up 3 floors.

A $f - 5 + 3$ C $5 + 3 = f$

B $f + 5 - 3$ D $f - 5 = 3$

10. Kim ate 3 of the 12 cookies, and then baked some more.

F $3 + 12 + n$ H $12 - n - 3$

G $12 - 3 + n$ J $9 + 3 + n$

Mixed Review

11. Use mental math to find the sum.
 $10 + 60 + 200 + 1,000$

12. Write a number between 1.0 and 1.4
