

Parts of an Expression

Constant: a number without a variable

Term: parts of an expression separated by operators

Factor: different parts of a term.

Operator: math symbols $\Rightarrow +, -, \cdot, \div$

Coefficient: a number with a variable

Variable: a letter that represents an unknown number.

How to Solve a Word Problem

1. Read the whole problem.
2. Determine what the problem is asking you to do (what is the question?)
3. Determine what information you need in order to answer the question and underline it. Cross out the rest.
4. Determine what your variable will be.
5. Determine what your constant will be.
6. Determine what the coefficient will be.
7. Determine if you need an equal sign. If so, what goes after the equal sign?
8. Write your expression or equation.



Examples

1. There are 3 people who have a total weight of 595 pounds. Sally weighs 20 pounds less than Jessie. Rafael weighs 15 pounds more than Jessie. How much does Jessie weigh?

$x \rightarrow$ variable

$-20, 15 \rightarrow$ constant

$? \rightarrow$ coefficient

$=$

Equal sign?
Yes
 $= 595$

2. Fluffy, Spot, and Shampy have a combined age in dog years of 91. Spot is 14 years younger than Fluffy. Shampy is 6 years older than Fluffy. What is Fluffy's age, f , in dog years?

f = variable

-14, 6 \rightarrow constant

? \rightarrow coefficient

How old is fluffy?

Equal sign?

Yes
= 91

3. Jerry Marcosi puts 5% of the amount he makes per week into a retirement account, r . He is paid \$11.00 per hour and works 40 hours per week for a certain number of weeks, w . Write an equation to help him find out how much he puts in his retirement account.

4. A furniture store advertises a 40% off liquidation sale on all items. What would the sale price (p) be on a \$2,530 dining room set?

5. Kyle Thornton buys an item which normally sells for a certain price, x . Today, the item is selling for 25% off the regular price. A sales tax of 6% is added to the equation to find the final price of f .

6. Tamika Francois runs a floral shop. On Tuesday, Tamika sold a total of \$600 worth of flowers. The flowers cost her \$100, and she paid an employee to work 8 hours for a given hourly wage, w . Write an equation to help Tamika find her profit, p , on Tuesday.

7. Abby is a waitress at a local restaurant. She makes an hourly wage of \$3.50, plus she receives tips. On Monday, she works 6 hours and receives tip money, t . Write an equation showing what Abby make son Monday, y .

8. Beronica buys x shares of stock in a company at \$34.50 per share. She later sells the shares at \$40.50 per share. Write an equation to show how much money, m , Beronica has made.