

Solving Multiplication Story Problems



Objective

In this lesson, you will



Follow an order of steps to solve story problems using multiplication and containing more than one operation.

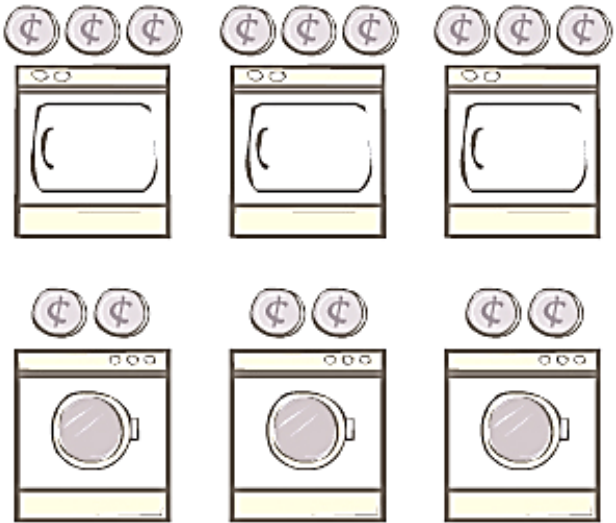

1. **Decide** what the _____ is.
2. **List** the information you know.
3. _____ a picture or chart that shows the information and the question.
4. **Write** the _____ that tell you how to find the answer.
5. **Write and solve** the arithmetic problem for each step.
6. _____ your work.



Luis has 3 loads of clothes to wash and dry. If each load takes 3 quarters for the washer and 2 quarters for the dryer, how many quarters does Luis need?

Problem-Solving Steps

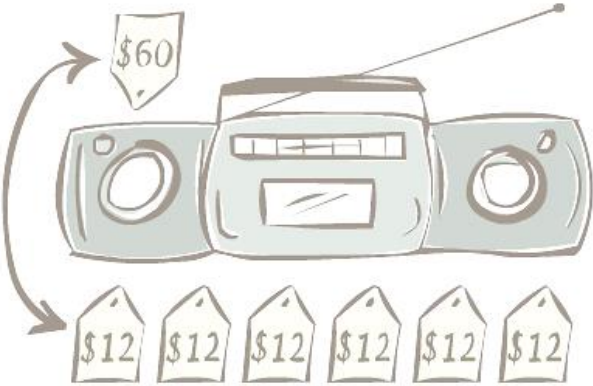

1. Decide what the _____ is.	QUESTION: How many quarters will Luis need to wash and dry 3 loads?
2. _____ the information you know.	<ul style="list-style-type: none"> • there are _____ loads of clothes to wash and dry • each load takes _____ quarters to wash • each load takes _____ quarters to dry

<p>3. _____ a picture or chart that shows the information and the question.</p>	
<p>4. _____ the steps that tell how to find the answer.</p>	<ol style="list-style-type: none"> 1. <u> Add </u> <u> Subtract </u> the number of quarters needed to wash and dry one load. 2. <u> Multiply </u> <u> Divide </u> the sum by the number of loads.
<p>5. _____ and solve the arithmetic problem for each step.</p>	<p>For step 1: Add the number of quarters needed to wash and dry one load.</p> $3 + 2 = \underline{\hspace{2cm}} \text{ quarters}$ <p>For step 2: Then multiply the sum of quarters by the number of loads.</p> $5 \times 3 = \underline{\hspace{2cm}} \text{ quarters}$ <p style="text-align: center;">  Solution: <u> </u> quarters </p>
<p>6. _____ your work.</p>	<p>Finally, you should always check your work to be sure the answer is correct.</p> <p>For step 1:</p> $5 - 2 = \underline{\hspace{2cm}} \text{ quarters}$ <p>For step 2:</p> $15 \div 3 = \underline{\hspace{2cm}} \text{ quarters}$

Solving Multiplication Story Problems



Lori wants to buy a radio for 60 dollars. She can pay \$60 now, or she can pay \$12 a month for 6 months. How much more will she pay for the radio if she makes monthly payments?

1. Question:	What is the _____ between the price of the radio and the cost of 6 _____ payments?		
2. Information you know:	<ul style="list-style-type: none"> • price of the radio: _____ dollars • \$_____ a month for 6 months 		
3. Picture:			
4. Steps to solve:	<ol style="list-style-type: none"> 1. <u> Multiply </u> <u> Divide </u> the number of months with the cost of each monthly payment. 2. <u> Add </u> <u> Subtract </u> the price of the radio from the total cost of the monthly payments. 		
5. Solution:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> 1. First step: $12 \times 6 = \underline{\quad}$ </td> <td style="width: 50%; vertical-align: top;"> 2. Second step: $72 - 60 = \underline{\quad}$ </td> </tr> </table> <p>How much more will she pay for the radio if she makes monthly payments?</p> <p style="text-align: center;">  Solution: \$ _____ </p>	1. First step: $12 \times 6 = \underline{\quad}$	2. Second step: $72 - 60 = \underline{\quad}$
1. First step: $12 \times 6 = \underline{\quad}$	2. Second step: $72 - 60 = \underline{\quad}$		
6. Check:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">$72 \div 6 = \underline{\quad}$</td> <td style="width: 50%; text-align: center;">$12 + 60 = \underline{\quad}$</td> </tr> </table>	$72 \div 6 = \underline{\quad}$	$12 + 60 = \underline{\quad}$
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It is 185 miles to Fort Worth. If Vang drives 2 hours at 65 miles per hour, how far will he be from Fort Worth?

1. Question:	How far will Vang be from _____ after ____ hours?
2. Information you know:	<ul style="list-style-type: none"> • _____ miles to Fort Worth • Vang drives _____ hours • _____ miles per hour
3. Picture:	
4. Steps to solve:	<ol style="list-style-type: none"> 1. <u> Multiply </u> <u> Divide </u> the number of hours times the number of miles per hour. 2. <u> Add </u> <u> Subtract </u> the number of miles driven from the total number of miles to Fort Worth.
5. Solution:	<p>1. First step: $2 \times 65 = \underline{\hspace{2cm}}$</p> <p>2. Second step: $185 - 130 = \underline{\hspace{2cm}}$</p> <p>How far will he be from Fort Worth?</p> <p style="text-align: center;"> Solution: $\underline{\hspace{2cm}}$ miles</p>
6. Check:	$130 \div 2 = \underline{\hspace{2cm}}$ $55 + 130 = \underline{\hspace{2cm}}$

Summary

In the examples above, what words or phrases in the story problems clued you to use multiplication?