

# Multiplication and Division Word Problems

Word problems involve a story set-up: scenes from real life in which a calculation needs to be made.

A simple number sentence (an equation) involves three numbers, e.g.  $x + y = z$ , or  $a \times b = c$ .

In a simple word problem, two of the three numbers from an equation are given in the set-up and the question directs you to find the third number. For the work on this page, rewrite each given set-up as a word problem, including only two numbers, and write the question that will produce the third number.

*Example:*

Set-up: 6 wheels on a lorry, 8 lorries.

Write a word problem for: (i)  $6 \times 8 =$                       (ii)  $48 \div 6 =$                       (iii)  $48 \div 8 =$

- (i)  $6 \times 8 =$       A garage has 8 lorries, each of which has 6 wheels. All the tyres need replacing. How many tyres will the garage need to replace?
- (ii)  $48 \div 6 =$       Tom counts the wheels on lorries. All the lorries he sees have 6 wheels each. After 10 minutes, he has counted 48 wheels. How many lorries has he seen?
- (iii)  $48 \div 8 =$       How many wheels has each lorry, if eight lorries have a total of 48 wheels?

1) Set-up: 12 eggs in an egg box, 5 boxes.

Write a word problem for:                      (i)  $12 \times 5 =$                       (ii)  $60 \div 5 =$                       (iii)  $60 \div 12 =$

2) Set-up: 6 glassfuls per bottle, 7 bottles.

Write a word problem for:                      (i)  $7 \times 6 =$                       (ii)  $42 \div 7 =$                       (iii)  $42 \div 6 =$

3) Set-up: 4 chairs around a table, 9 tables.

Write a word problem for:                      (i)  $4 \times 9 =$                       (ii)  $36 \div 4 =$                       (iii)  $36 \div 9 =$

4) Set-up: 56 hours worked over 7 days.

Write a word problem for:                      (i)  $8 \times 7 =$                       (ii)  $56 \div 8 =$                       (iii)  $56 \div 7 =$

5) Set-up: 36 athletes, 3 teams.

Write a word problem for:                      (i)  $3 \times 12 =$                       (ii)  $36 \div 3 =$                       (iii)  $36 \div 12 =$

In the following questions choose your own numbers for each set-up before making up the three word problems.

6) ..... plants in a row                      ..... rows of plants  
Write a word problem for:                      (i)  $\times =$                       (ii)  $\div =$                       (iii)  $\div =$

7) ..... biscuits                      ..... packets of biscuits  
Write a word problem for:                      (i)  $\times =$                       (ii)  $\div =$                       (iii)  $\div =$

8) ..... people                      ..... coaches  
Write a word problem for:                      (i)  $\times =$                       (ii)  $\div =$                       (iii)  $\div =$

9) ..... books                      ..... bookshelves  
Write a word problem for:                      (i)  $\times =$                       (ii)  $\div =$                       (iii)  $\div =$

10) ..... items bought                      each costs .....  
Write a word problem for:                      (i)  $\times =$                       (ii)  $\div =$                       (iii)  $\div =$