

# Problem solving

Sometimes when maths problems are written down as a sentence they can appear quite tricky. Don't panic! We have some tips to help you solve them.

1. Read and re-read the question.
2. Underline key information.
3. Turn the text into a calculation.
4. Solve the calculation.

Remember the four operations

**+** Addition

**−** Subtraction

**÷** Division

**X** Multiplication

## If in doubt, draw it out!

Here's a simple example:

Pirate Pickle took Jones, Bones, Ollie, Short John Silver, Hector Higgins, and Jack Jack to steal the tremendous treasure from the King's men. Jones, Bones and Ollie got captured. How many pirates managed to escape?

**7** pirates went to steal the tremendous treasure

**3** pirates got captured

which leaves **4** pirates who managed to escape

$$7 - 3 = 4$$



Name

Class

Date

# Pirate problems

For each pirate problem, underline the key information, then write out the calculation and answer it in the space on the right. The first one has been done for you.

<p>Mad Mary Trotter is <u>1.6 metres</u> tall.</p> <p>Hector Higgins is <u>1.82 metres</u> tall.</p> <p><u>How much taller</u> is Hector than Mary?</p>	$\begin{array}{r} 1.82 \\ -1.60 \\ \hline 0.22 \\ \hline 22\text{cm} \end{array}$
<p>Milo the Monkey is only happy if he eats 3 bananas a day.</p> <p>The pirates are going on a journey lasting 11 days.</p> <p>How many bananas should Captain Pickle buy to keep Milo happy?</p>	
<p>The tremendous treasure could be hidden on any one of 15 islands.</p> <p>It takes 2 days for the pirates to search each island.</p> <p>How long would it take the pirates to search all 15 islands?</p>	
<p><i>The Greedy Gizzard</i> has two masts: the foremast and the main mast.</p> <p>The foremast is 1.25 metres smaller than the main mast.</p> <p>The main mast is 15 metres.</p> <p>How big is the foremast?</p>	
<p>Captain Snodbury's new cannon is amazing. It can fire cannonballs 8 times as far as her old cannon.</p> <p>Her old cannon could fire cannon balls 450 metres.</p> <p>How far can her new cannon fire?</p>	

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# Pirate problems

For each pirate problem, underline the key information, then write out the calculation and answer it in the space on the right.

<p>Calico Jill has set some grammar exercises for 8 of the pirates.</p> <p>Each pirate will need 5 sheets of paper.</p> <p>How many sheets of paper will Calico need in total?</p>	
<p>In amongst the stolen tremendous treasure were 4 diamond necklaces, 6 ruby necklaces, 7 sapphire necklaces and 22 pearl necklaces.</p> <p>How many necklaces were there altogether?</p>	
<p>There were also lots of gold coins. There were 1,200 doubloons.</p> <p>If Pirate Pickle were to share out the doubloons equally between the 8 crew of <i>The Greedy Gizzard</i> how many would each pirate get?</p>	
<p>Leon Pugwasher was making mops out of old rope.</p> <p>Each mop needs 10 sections of rope and each section needs to be 30cm long.</p> <p>How much old rope does Leon need to make 2 mops?</p>	
<p>It takes a nervous Ferdinand 15 minutes to climb up to the crow's nest at the end of the story.</p> <p>The main mast is 15 metres high.</p> <p>How far can Ferdinand climb in one minute?</p>	

# Pirate problems

## Answers

<p>Mad Mary Trotter is <u>1.6 metres</u> tall.</p> <p>Hector Higgins is <u>1.82 metres</u> tall.</p> <p><u>How much taller</u> is Hector than Mary?</p>	$\begin{array}{r} 1.82 \\ -1.60 \\ \hline 0.22 \\ 22\text{cm} \end{array}$
<p>Milo the Monkey is only happy if he eats <u>3 bananas a day</u>.</p> <p>The pirates are going on a journey lasting <u>11 days</u>.</p> <p><u>How many</u> bananas should Captain Pickle buy to keep Milo happy?</p>	$\begin{array}{r} 3 \\ \times 11 \\ \hline 33 \\ (33 \text{ bananas}) \end{array}$
<p>The tremendous treasure could be hidden on any one of <u>15 islands</u>.</p> <p>It takes <u>2 days</u> for the pirates to search each island.</p> <p><u>How long</u> would it take the pirates to search all <u>15 islands</u>?</p>	$\begin{array}{r} 15 \\ \times 2 \\ \hline 30 \\ (30 \text{ days}) \end{array}$
<p><i>The Greedy Gizzard</i> has two masts. The foremast and the main mast.</p> <p>The foremast is <u>1.25 metres smaller</u> than the main mast.</p> <p>The main mast is <u>15 metres</u>. <u>How big</u> is the foremast?</p>	$\begin{array}{r} 15.00 \\ -1.25 \\ \hline 13.75 \\ (13.75\text{m}) \end{array}$
<p>Captain Snodbury's new cannon is amazing.</p> <p>It can fire cannonballs <u>8 times as far</u> as her old cannon.</p> <p>Her old cannon could fire cannon balls <u>450 metres</u>.</p> <p><u>How far</u> can her new cannon fire?</p>	$\begin{array}{r} 450 \\ \times 8 \\ \hline 18,000 \\ (3600\text{m}/3.6\text{km}) \end{array}$
<p>Calico Jill has set some grammar exercises for <u>8</u> of the pirates.</p> <p>Each pirate will need <u>5</u> sheets of paper.</p> <p><u>How many</u> sheets of paper will Calico need <u>in total</u>?</p>	$\begin{array}{r} 8 \\ \times 5 \\ \hline 40 \\ (40 \text{ sheets of paper}) \end{array}$
<p>In amongst the stolen tremendous treasure were <u>4</u> diamond necklaces, <u>6</u> ruby necklaces, <u>7</u> sapphire necklaces and <u>22</u> pearl necklaces. <u>How many</u> necklaces were there <u>altogether</u>?</p>	$\begin{array}{r} 4 \\ + 6 \\ + 7 \\ + 22 \\ \hline 39 \\ (39 \text{ necklaces}) \end{array}$
<p>There were also lots of gold coins. There were <u>1,200 doubloons</u>.</p> <p>If Pirate Pickle were to <u>share out</u> the doubloons equally between the <u>8</u> crew of <i>The Greedy Gizzard</i> <u>how many</u> would <u>each pirate</u> get?</p>	$\begin{array}{r} 1,200 \\ \div 8 \\ \hline 150 \\ (150 \text{ doubloons}) \end{array}$
<p>Leon Pugwasher was making mops out of old rope.</p> <p>Each mop needs <u>10 sections</u> of rope and each section needs to be <u>30cm</u> long. <u>How much</u> old rope does Leon need to make <u>2 mops</u>?</p>	$\begin{array}{r} 10 \\ \times 30 \\ \hline 300 \\ \times 2 \\ \hline 600 \\ (600\text{cm}/6\text{m}) \end{array}$
<p>It takes a nervous Ferdinand <u>15 minutes</u> to climb up to the crow's nest at the end of the story. The main mast is <u>15 metres</u> high.</p> <p><u>How far</u> can Ferdinand climb in <u>one minute</u>?</p>	$\begin{array}{r} 15 \\ \div 15 \\ \hline 1 \\ (1\text{m}) \end{array}$