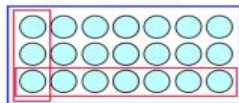




# Year 4 Division

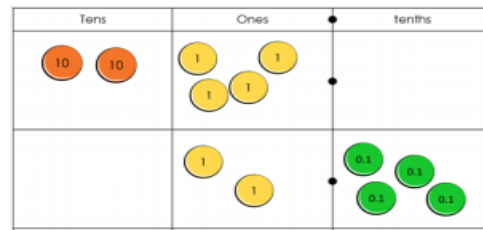
Strategy and Guidance	CPA																																
<p><b><u>Dividing by 10 and 100</u></b></p> <p>When you divide by ten, each part is ten times smaller. The hundreds become tens and the tens become ones. Each digit is in a place that gives it a value that is ten times smaller. When dividing multiples of ten, a place holder is no longer needed so that each digit has a value that is ten times smaller. E.g. <math>210 \div 10 = 21</math></p>	<div style="text-align: center; margin-bottom: 10px;"> <table border="1" style="border-collapse: collapse; margin: auto;"> <thead> <tr> <th style="padding: 2px;">thousands</th> <th style="padding: 2px;">hundreds</th> <th style="padding: 2px;">tens</th> <th style="padding: 2px;">ones</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">3</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">3</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">3</td> </tr> </tbody> </table> </div> <div style="margin-left: 20px;"> <p><math>30 \div 10 = 3</math></p> <p><math>300 \div 100 = 3</math></p> <p><math>3000 \div 1000 = 3</math></p> <p><math>300 \div 10 = 30</math></p> <p><math>3000 \div 100 = 30</math></p> <p><math>3000 \div 10 = 300</math></p> </div>	thousands	hundreds	tens	ones	3	0	0	0	0	3	0	0	0	0	3	0	0	0	0	3												
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<p><b><u>Derived facts</u></b></p> <p>Pupils use their growing knowledge of multiplication facts, place value and derived facts to multiply mentally. Understanding of the inverse relationship between multiplication and division allows corresponding division facts to be derived.</p>	<div style="text-align: center; margin-bottom: 10px;"> <p><math>21 \div 3 = 7</math></p>  <p><math>21 \div 7 = 3</math></p> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p><math>210 \div 7 = 30</math></p> </div> <div style="text-align: center;">  <p><math>2100 \div 7 = 300</math></p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p><math>210 \div 3 = 70</math></p> <p><math>210 \div 30 = 7</math></p> <p><math>210 \div 70 = 3</math></p> </div> <div style="text-align: center;"> <p><math>2100 \div 3 = 700</math></p> <p><math>2100 \div 300 = 7</math></p> <p><math>2100 \div 700 = 3</math></p> </div> </div>																																
<p><b><u>Short division of 4-digit numbers by 1-digit numbers</u></b></p> <p>Pupils start with dividing 4-digit numbers by 2, 3 and 4, where no regrouping is required. Place value counters are used simultaneously in a place value chart, to develop conceptual understanding. They progress to calculations that require regrouping in the hundreds or tens columns. Pupils build on their conceptual knowledge of division to become confident with dividing numbers where the tens digit is smaller than the divisor, extending this to any digit being smaller than the divisor. Exemplification of this method and the language to use are best understood through viewing the tutorial videos found here on the toolkit</p>	<p><b>Division as sharing</b></p> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="margin-right: 20px;"> <math display="block">\begin{array}{r} 3 \overline{) 3486} \end{array}</math> </div> <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 2px;">Th</th> <th style="padding: 2px;">H</th> <th style="padding: 2px;">T</th> <th style="padding: 2px;">O</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">●</td> <td style="text-align: center;">●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●</td> </tr> <tr> <td style="text-align: center;">●</td> <td style="text-align: center;">●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●</td> </tr> <tr> <td style="text-align: center;">●</td> <td style="text-align: center;">●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●</td> </tr> </tbody> </table> </div> <p><b>Division as grouping</b></p> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="margin-right: 20px;"> <math display="block">\begin{array}{r} 3231 \\ 3 \overline{) 9693} \end{array}</math> </div> <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 2px;">Thousands</th> <th style="padding: 2px;">Hundreds</th> <th style="padding: 2px;">Tens</th> <th style="padding: 2px;">Ones</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> </tr> <tr> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> </tr> <tr> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> <td style="text-align: center;">●●●●</td> </tr> </tbody> </table> </div>	Th	H	T	O	●	●	●●●●	●●	●	●	●●●●	●●	●	●	●●●●	●●	Thousands	Hundreds	Tens	Ones	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●
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## Year 4 Division

**Division of a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths**

When you divide by ten, each part is ten times smaller. The tens become ones and the ones become tenths. Each digit is in a place that gives it a value that is ten times smaller.

$$24 \div 10 = 2.4$$



$$24 \div 100 = 0.24$$

