

$98 \div 7 =$

$$\begin{array}{r} 14 \\ 7 \overline{) 98} \\ \underline{7} \phantom{0} \\ 28 \\ \underline{28} \\ 0 \end{array}$$

$432 \div 5 =$

$$\begin{array}{r} 086 \text{ r}2 \\ 5 \overline{) 432} \\ \underline{4} \phantom{0} \\ 32 \\ \underline{30} \\ 2 \end{array}$$

$496 \div 11 =$

$$\begin{array}{r} 045 \text{ r}1 \\ 11 \overline{) 496} \\ \underline{44} \phantom{0} \\ 56 \\ \underline{55} \\ 1 \end{array}$$

Sometimes the chunking method can be inefficient and lead to errors. Once secure with the chunking method, children will move on to the formal written method of short division.

Short division can also be used when the divisor is a 2-digit number if the multiples of the divisor are known. In this example, the multiples of the divisor are known (11 times tables).

$489.6 \div 17 =$

$$\begin{array}{r} 28.8 \\ 17 \overline{) 489.6} \\ \underline{- 34} \phantom{0} \\ 149 \\ \underline{- 136} \\ 136 \\ \underline{- 136} \\ 0 \end{array}$$

For division calculations where the multiples of the divisor are not known, children may find it easier to use the formal written method of long division. It starts in the same way as short division. However, instead of mentally working out each step, multiples of the divisor are subtracted from the partial dividend using column subtraction. The next digit is brought down and this process is repeated until there are no remaining digits (or remainders).



QUEENSMEAD  
PRIMARY ACADEMY

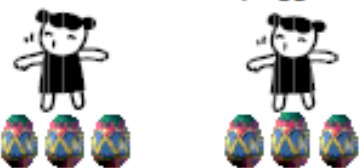

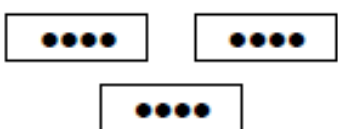
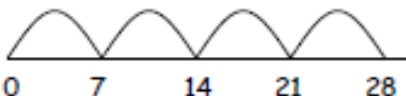
Helping your  
child at home

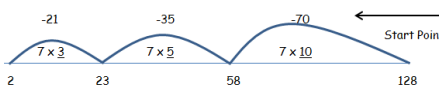
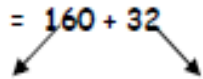


Division

## DIVISION

Children are taught to understand division as sharing and grouping.

|  |   |
|--|---|
| <p><b>6 ÷ 2 =</b><br/>6 Easter eggs are shared between 2 children. How many eggs do they get each?</p> <div style="display: flex; align-items: center; justify-content: space-around;">  <div style="text-align: center;"> <p>Sharing<br/>between 2</p> </div> </div> <p>There are 6 Easter eggs. How many children can have two each?</p> <div style="display: flex; align-items: center; justify-content: space-around;">  <div style="text-align: center;"> <p>Grouping<br/>in twos</p> </div> </div> | <p><b>More pictures!</b><br/>Drawing often gives children a way into solving the problem.</p>                                       |
| <p><b>12 ÷ 4 =</b><br/>4 apples are packed in a basket. How many baskets can you fill with 12 apples?</p> <div style="display: flex; align-items: center; justify-content: space-around;">  <div style="text-align: center;"> <p>Grouping<br/>in fours</p> </div> </div>  | <p>Dots or tally marks can either be shared out one at a time or split up into groups.</p>  |
| <p><b>28 ÷ 7 =</b><br/>A chew bar costs 7p. How many can I buy with 28p?</p>    | <p>To work out how many 7's there are in 28, draw jumps of 7 along a number line. This shows you need 4 jumps of 7 to reach 28.</p> |

|  |   |
|--|---|
| <p><b>128 ÷ 7 =</b><br/>There are 7 days in a week. How many weeks are there in 128 days?</p>   | <p>It would take a long time to jump in 7s to 128 so children can subtract in bigger 'chunks'. Always try subtracting 10 groups if you have enough. After completing the subtraction of the groups, count the number of groups.</p>                         |
| <p><b>192 ÷ 8 =</b><br/>8 pencils fit in each packet. If you have 192 pencils, how many packets can be filled?</p> <p style="text-align: center;"> <math>192 = 160 + 32</math><br/> <br/> <math>20 \text{ groups} + 4 \text{ groups} = 24</math> </p> | <p>It is helpful to split 192 into sensible 'chunks' before dividing. As you are dividing by 8, the 'chunks' chosen must also be multiples of 8. Divide each 'chunk' (how many groups of 8?) and then add the answers together.</p>                         |
| <p><b>184 ÷ 7 =</b><br/>I need 184 chairs for a concert. I arrange them in rows of 7. How many rows do I need?</p> <div style="text-align: center;"> <math display="block">\begin{array}{r} 184 \\ - 140 \quad 20 \text{ groups} \\ \hline 44 \\ - 42 \quad 6 \text{ groups} \\ \hline 2 \\ = 26 \text{ r}2 \end{array}</math> </div>    | <p>This method is known as chunking. In this example, you are taking away chunks of 7. First subtract 140 (20 groups of 7) and you are left with 44. Then subtract 42 (6 groups of 7), to leave 2. Altogether, that is 26 sevens with a remainder of 2.</p> |