

Short Division

Short division is a written method that can help you divide bigger numbers. In Year 5, you saw how to divide by 1-digit numbers — now you'll use short division to divide by 2-digit numbers.

Examples

What is $9864 \div 12$?

$$\begin{array}{r} 822 \\ 12 \overline{) 9864} \\ \underline{96} \\ 26 \\ \underline{24} \\ 24 \\ \underline{24} \\ 00 \end{array}$$

Regan works for 1970 minutes each week. Every task she does takes 13 minutes. How many whole tasks can she do in a week?

$$\begin{array}{r} 151r7 \\ 13 \overline{) 1970} \\ \underline{13} \\ 67 \\ \underline{65} \\ 20 \\ \underline{19} \\ 10 \end{array}$$

Regan can do **151** whole tasks.

If you get a remainder, you might need to round up or down, depending on the context of the question.

Set A

Work out the following, writing any remainders as whole numbers:

1 $11 \overline{) 264}$

5 $12 \overline{) 379}$

2 $12 \overline{) 156}$

6 $15 \overline{) 355}$

3 $14 \overline{) 154}$

7 $12 \overline{) 7238}$

4 $16 \overline{) 192}$

8 $11 \overline{) 3646}$

9 Pablo has 817 seeds. How many seeds will he have left over if he shares them between 11 pots?

10 Annette has 5077 sequins. She makes hats and sews 25 sequins onto each hat. How many hats can she make?

Set B

Work out the following, writing any remainders as whole numbers:

1 $12 \overline{) 252}$

5 $11 \overline{) 2709}$

2 $11 \overline{) 957}$

6 $12 \overline{) 1988}$

3 $15 \overline{) 645}$

7 $14 \overline{) 1860}$

4 $25 \overline{) 825}$

8 $23 \overline{) 3042}$

9 A greengrocer has 475 apples. He sells them in bags of 13. How many whole bags can he fill?

10 A pop group wants to send a badge to each of the 8275 members of their fan club. Badges are sold in packs of 12. How many packs do they need?

Set C

Work out the following, writing any remainders as whole numbers:

1 $12 \overline{) 708}$

5 $25 \overline{) 8985}$

2 $11 \overline{) 7194}$

6 $23 \overline{) 5319}$

3 $21 \overline{) 2772}$

7 $13 \overline{) 3569}$

4 $15 \overline{) 5445}$

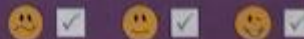
8 $18 \overline{) 1060}$

9 A bakery has made 2852 bagels. They sell them in packs of 16. How many whole packs can they fill?

10 One week a ferry transported 4622 cars. The ferry can carry 28 cars at a time. What is the smallest number of journeys the ferry could have made?

can use short division.

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Long Division — 1

Long division is another way of dividing bigger numbers. It's set out in a similar way to short division, but your working out is written more clearly. Remember to keep your columns nice and tidy.

Examples

What is $924 \div 21$?

$$\begin{array}{r} 44 \\ 21 \overline{) 924} \\ \underline{- 84} \\ 84 \\ \underline{- 84} \\ 0 \end{array}$$

Stop when you get to zero, or less than what you're dividing by (which is 21 here).

$$924 \div 21 = 44$$

What is $2010 \div 15$?

$$\begin{array}{r} 134 \\ 15 \overline{) 2010} \\ \underline{- 15} \\ 51 \\ \underline{- 45} \\ 60 \\ \underline{- 60} \\ 0 \end{array}$$

$$2010 \div 15 = 134$$



Set A

Work out:

1 $11 \overline{) 473}$

2 $12 \overline{) 888}$

3 $15 \overline{) 960}$

4 $13 \overline{) 637}$

Work out:

5 $22 \overline{) 704}$

6 $25 \overline{) 675}$

7 $12 \overline{) 1896}$

8 $11 \overline{) 6556}$

Use long division to work out:

9 $903 \div 21$

10 $432 \div 12$

11 $812 \div 14$

12 $767 \div 13$

13 $4175 \div 25$

14 $6974 \div 11$

Set B

Work out:

1 $12 \overline{) 804}$

2 $16 \overline{) 672}$

3 $22 \overline{) 902}$

4 $25 \overline{) 925}$

Work out:

5 $11 \overline{) 6413}$

6 $13 \overline{) 4732}$

7 $24 \overline{) 3816}$

8 $21 \overline{) 2289}$

Use long division to work out:

9 638 divided by 22

10 952 divided by 28

11 6328 divided by 14

12 4788 divided by 21

13 8892 divided by 26

14 1386 divided by 33

Set C

Work out:

1 $15 \overline{) 4635}$

2 $23 \overline{) 3657}$

3 $29 \overline{) 3886}$

4 $17 \overline{) 9741}$

Work out:

5 $936 \div 18$

6 $6762 \div 23$

7 $9960 \div 24$

8 $8848 \div 28$

9 $1472 \div 32$

10 $1274 \div 49$

Doris wins £5712 at bingo. How much would each person get if she shares it equally between:

11 14 grandchildren!

12 16 nieces!

13 17 nephews!

14 28 friends!

15 42 neighbours!

I can use long division.



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Example

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