Fractions and decimal fractions

Most calculators do not display fractions as you usually write them.

But it is easy to change fractions into decimal fractions using a calculator.

$\frac{1}{2}$ means 1 divided by 2 or   1 ÷ 2.

Do this on a calculator: enter   1 ÷ 2 =

The answer 0.5 will come up.

This means that $\frac{1}{2}$ is the same as 0.5

Find the decimal fraction for these fractions. Complete all parts of the table below.

$\frac{3}{5}$	Means 3 divided by 5	3 ÷ 5 =	0.6
$\frac{2}{5}$	Means		
$\frac{6}{10}$	Means		
$\frac{7}{10}$	Means		
$\frac{3}{4}$	Means		
$\frac{9}{10}$	Means		

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Fractions and decimal fractions

Most calculators do not display fractions as you usually see them, but it can display them as decimal fractions.

$\frac{15}{100}$ can be thought of as fifteen divided by one hundred

    or   15 ÷ 100   which equals 0.15

Do this on a calculator: enter 15 ÷ 10 =

The answer 0.15 will come up.

This means that $\frac{15}{100}$ is the same as 0.15

Find the decimal fraction for these fractions. Complete all parts of the table below.

$\frac{13}{100}$	Means 13 divided by 100	13 ÷ 100 =	0.13
$\frac{1}{100}$	Means		
$\frac{6}{10}$	Means		
$\frac{45}{100}$	Means		
$\frac{33}{100}$	Means		
$\frac{12}{100}$	Means		
$\frac{10}{10}$	Means		

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Mixed numbers as decimal fractions - extension
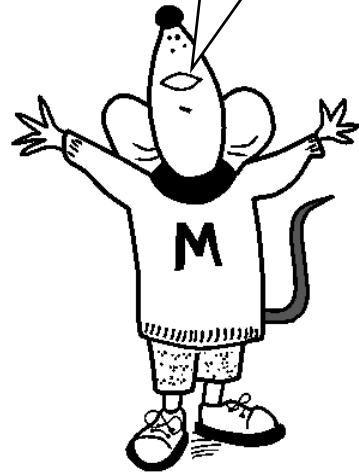
$4\frac{3}{10}$ can be written as 4.3 when using a calculator.

This is because $\frac{3}{10}$ means $3 \div 10$ which is 0.3

Write these mixed numbers as decimal fractions:

1.	$8\frac{35}{100}$	…………………
2.	$4\frac{15}{100}$	…………………
3.	$2\frac{1}{5}$	…………………
4.	$7\frac{6}{10}$	…………………
5.	$4\frac{3}{5}$	…………………
6.	$5\frac{90}{100}$	………………
7.	$3\frac{70}{100}$	………………
8.	$6\frac{65}{100}$	………………

> Just think of a fraction as a division sum - it's easy then!
>
> Three quarters means 3 divided by 4…..

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Mixed numbers as decimal fractions - extension

$6\frac{3}{10}$ can be written as 6.3 when using a calculator.

This is because $\frac{3}{10}$ means $3 \div 10$ which is 0.3

Write these mixed numbers as decimal fractions:

1.	$7\frac{44}{100}$ …………………
2.	$5\frac{22}{100}$ …………………
3.	$3\frac{6}{10}$ …………………
4.	$8\frac{1}{100}$ …………………
5.	$5\frac{99}{100}$ …………………
6.	$6\frac{2}{100}$ ………………
7.	$4\frac{15}{100}$ ………………
8.	$6\frac{69}{100}$ ………………

99 hundredths is 0.99

Now that is very nearly one whole one!

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Decimal fractions to fractions

The first number after the decimal point is in the tenths column.

So, 0.4 means 4 tenths. It can also be written as $\frac{4}{10}$

0.04 means 4 hundredths. It can be written as $\frac{4}{100}$

0.44 means 4 tenths and 4 hundredths or 44 hundredths.

It can be written as $\frac{44}{100}$

Write down the fractions which equal these decimals:

1. 0.4   2. 0.8   3. 0.18   4. 0.38   5. 0.54

6. Which of these decimals is equal to $\frac{8}{10}$?

       8.8   0.18   0.88   0.8   0.810

7. Which of these decimals is equal to $\frac{35}{100}$?

       0.035   0.135   3.5   3.500   0.35

Remember: 0.5 and 0.50 are the same - each equals five tenths.

The calculator will not display any unnecessary 0s at the end of a decimal number. It will show £3.60 as 3.6

Write down how a calculator displays these numbers:

8. 2.200 …………   9. 4.00 …………

10. 5.100 …………   11. 6.20 …………

12. 7.10000 …………

Equivalence between decimals and fractions

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Answers

Page 1

2/5   means two divided by five   2 ÷ 5 = 0.4

6/10 means six divided by ten   6 ÷ 10 = 0.6

7/10 means seven divided by ten   7 ÷ 10 = 0.7

3/4   means three divided by four   3 ÷ 4 = 0.75

9/10 means nine divided by ten   9 ÷ 10 = 0.9

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1/100   means one divided by a hundred   1 ÷ 100 = 0.01

6/10   means six divided by ten   6 ÷ 10 = 0.6

45/100   means forty five divided by a hundred   45 ÷ 100 = 0.45

33/100   means thirty three divided by a hundred   33 ÷ 100 = 0.33

12/100   means twelve divided by a hundred   12 ÷ 100 = 0.12

10/10   means ten divided by ten   10 ÷ 10 = 1

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1. 8.35   **2.** 4.15   **3.** 2.2   **4.** 7.6   **5.** 4.6   **6.** 5.9   **7.** 3.7   **8.** 6.65

Page 4

1. 7.44   **2.** 5.22   **3.** 3.6   **4.** 8.01   **5.** 5.99   **6.** 6.02   **7.** 4.15   **8.** 6.69

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1. 4/10   **2.** 8/10   **3.** 18/100   **4.** 38/100   **5.** 54/100   **6.** 0.8

7. 0.35   **8.** 2.2   **9.** 4   **10.** 5.1   **11.** 6.2   **12.** 7.1

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