

Adding Decimals Simple Calculations

$2.5 + 2.6 =$	$3.8 + 9.9 =$	$4.7 + 1.3 =$
$4.7 + 0.3 =$	$5 + 4.2 + 0.11 =$	$4.7 + 1.4 =$
$5 + 0.7 =$	$6 + 0.15 + 0.6 =$	$5 + 6.02 + 0.3 =$

Subtracting Decimals Simple Calculations

$6.4 - 3.7 =$	$6.25 - 0.01 =$	$4.56 - 1.01 =$
$5.2 - 2.8 =$	$15.4 - 2.1 =$	$4.78 - 2.02 =$
$17.1 - 9.9 =$	$12.4 - 6.2 =$	$6.43 - 0.62 =$
$15.4 - 0.01$ Think $15.40 - 0.01$	$6.3 - 1.05$ Think $- 1.05$	$7.2 - 2.09$ Think $- 2.09$
$7 - 0.01$ Think $7.00 - 0.01$	$60 - 2.7$ Think $- 2.7$	$16 - 2.03$ Think $- 2.03$

When multiplying by decimals

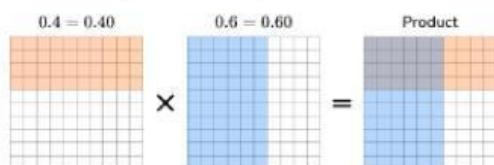
Multiplying Decimals

Multiplying decimals is when you multiply numbers involving decimals.

Multiplying decimal numbers is very similar to multiplying multi-digit whole numbers.

Example Work out 0.4×0.6

Look at the overlapped shaded region.
That area represents the product.



There are 24 squares in the overlap that are shaded.
Each square represents 0.01 (1 hundredth), so the product = 0.24

The standard algorithm for multiplication also gets a result of 0.24.

$$\begin{array}{r}
 0.4 \\
 \times 0.6 \\
 \hline
 0.24
 \end{array}$$

0.4 → 1 digit after decimal point
 × 0.6 → 1 digit after decimal point
 0.24 → Total number of digits after decimal point (1 digit + 1 digit = 2 digits)



$$1.2 \times 1.2 = 1.44$$

Expression has 2 decimal places

Multiply by the whole

$$12 \times 12 = 144.$$

Move the decimal back 2 places

$$1.44$$

12 x 15 = 180 1.2 x 1.5 = 12 x 1.2 =	11 x 12 = 180 1.1 x 1.2 = 1.1 x 0.12 =
1.3 x 0.2 =	1.4 x 0.5 =
2.1 x 0.3 =	1.2 x 0.03 =
4.3 x 0.01 =	20.5 x 0.02 =
24.2 x 0.2 =	124.4 x 0.02 =

Dividing Decimals

To **divide decimals** we can treat the division like a fraction and find an equivalent fraction which has an integer denominator.

If we are dividing by an integer, we can use the short division method.

E.g.

$$\begin{array}{r}
 0.124 \\
 6 \overline{) 0.744} \\
 \hline
 0.744 \div 6 = 0.124
 \end{array}$$

If we are dividing by a decimal, we can adjust the division problem to make the decimal an integer.

E.g.

$$\begin{array}{r}
 8.75 \div 0.7 \\
 \hline
 8.75 \xrightarrow{\times 10} 87.5 \\
 0.7 \xrightarrow{\times 10} 7 \\
 \hline
 87.5 \div 7 = 12.5
 \end{array}$$



2.4 ÷ 0.2 is the same as 24 ÷ 2

X10 X10

Multiply both parts of the expression x10 to change the divisor into an integer

3x5=15 5x5=25 6x5=30 7x5=35	4x4=16 6x4=24 7x4=28 8x4=32
2.5 ÷ 0.5 = ÷ =	1.6 ÷ 0.04 = ÷ =
1.5 ÷ 0.3 = ÷ =	2.8 ÷ 0.07 = ÷ =
3.5 ÷ 0.7 = ÷ =	32 ÷ 0.08 = ÷ =
1.5 ÷ 0.5 = ÷ =	24 ÷ 0.04 = ÷ =
6 ÷ 0.5 = ÷ =	3.2 ÷ 0.03 = ÷ =