As a division	Multiplication by a decimal	Multiplication by a Fraction	As a percentage Calculation	Solution
$400 \div 10$	400×0.1	$400 \times \frac{1}{10}$	10% of 400	40
$300 \div 1000$				
	0.3×0.01			
		$4.5 \times \frac{1}{5}$		
			25% of 6.4	
$0.6 \div 0.06$				
	3.14×0.005			
		$350 \times \frac{7}{10000}$		
			3.6% of 270	

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	3.14×0.005			
		$350 \times \frac{7}{10000}$		
			3.6% of 270	

Monday 10.03.2025

MPI: multiplying decimals with integers

1) 5×3.3

2) 7×7.4

3) 2.1×8

4) 4.3×9

5) 1.7×12

6) 5.1×21

Work out the multiplications.

a) 7.2 × 2 = ☐

7.2 × 4 = ☐

14.4 × 4 = ☐

7.2 × 8 = ☐

b) ☐ = 3.45 × 3

☐ = 34.5 × 3

☐ = 345 × 3

The price of a carpet is £4.99 per square metre. Find the cost of 8 square metres of carpet.

Chain is sold for £2.44 per metre. Find the cost of 3.2 metres of chain.

Apples are sold for £1.06 per kilogram. Find the cost of 2.4 kilograms of apples.

A factory makes 260 televisions in a day. How many televisions are made at the factory in a whole year? Give 3 possible answers, explaining each one.

The rule for the sequence is multiply by 6, what is the value of C?

0.39, A, B, C, 505.44

Use the digits 1, 2, 3 and 4 once each to create a calculation.

1	2	3	4

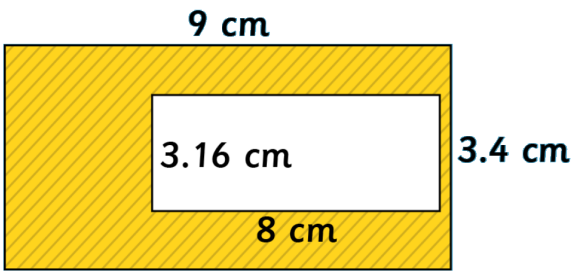
☐ . ☐ ☐ × ☐

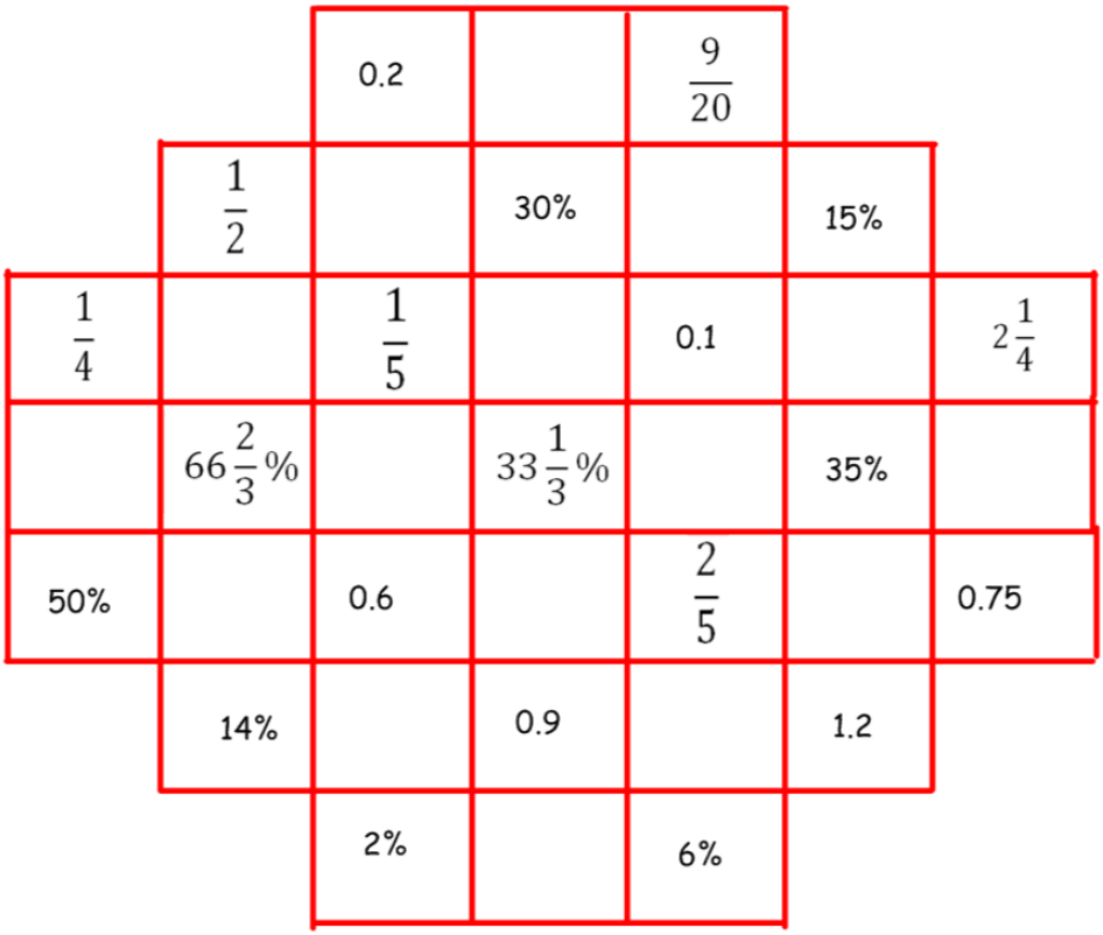
a) How many different products can you make?

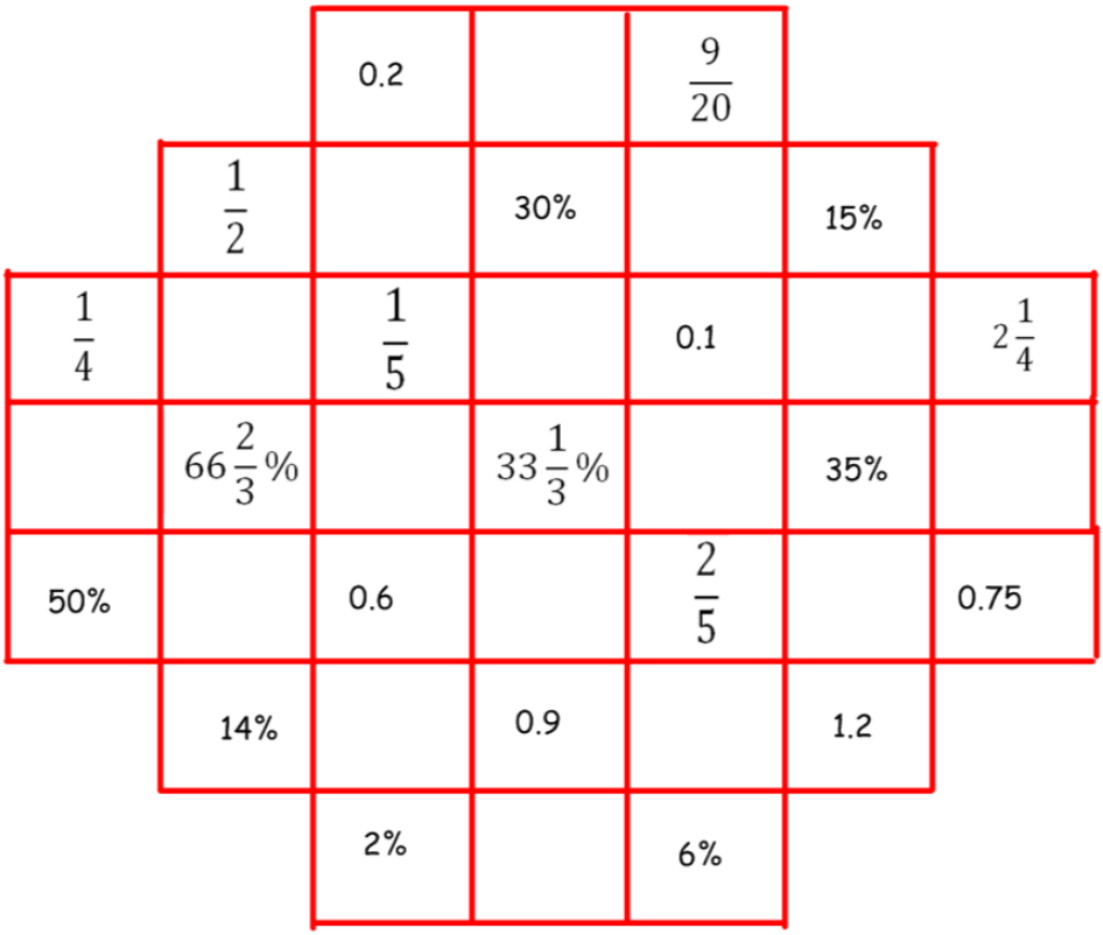
b) What is the greatest possible product?

c) What is the smallest possible product?

How many square centimetres (cm²) is the area of the shaded part of the shape?




0.2
$\frac{9}{20}$
$\frac{1}{2}$
30%
15%
$\frac{1}{4}$
$\frac{1}{5}$
0.1
$2\frac{1}{4}$
$66\frac{2}{3}\%$
$33\frac{1}{3}\%$
35%
50%
0.6
$\frac{2}{5}$
0.75
14%
0.9
1.2
2%
6%


0.2
$\frac{9}{20}$
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30%
15%
$\frac{1}{4}$
$\frac{1}{5}$
0.1
$2\frac{1}{4}$
$66\frac{2}{3}\%$
$33\frac{1}{3}\%$
35%
50%
0.6
$\frac{2}{5}$
0.75
14%
0.9
1.2
2%
6%

Tuesday 11.03.2025

MPI: dividing decimals by integers

Carry out the following divisions.

(a)	2.54 ÷ 2	(b)	21.63 ÷ 3	(c)	10.24 ÷ 4
(d)	87.5 ÷ 5	(e)	918.4 ÷ 7	(f)	49.24 ÷ 4
(g)	388.5 ÷ 15	(h)	123.84 ÷ 12	(i)	714.84 ÷ 6

£375.69 is raised at a jumble sale. This is divided equally between 3 charities. How much does each of the charities get?

A rope is 22.48 m long. It is cut into 4 parts of equal length. How long is each part?

Work out the divisions.

a) 9.64 ÷ 4 = ☐

96.4 ÷ 4 = ☐

0.964 ÷ 4 = ☐

9.64 ÷ 8 = ☐

b) 19.44 ÷ 9 = ☐

19.53 ÷ 9 = ☐

19.62 ÷ 9 = ☐

$4\overline{)352.8}$

$7\overline{)2179.8}$

$3\overline{)2990.7}$

$7\overline{)5087.6}$

$9\overline{)811.8}$

Fill in the missing numbers.

3.6 ÷ 4 = 36 ÷ ☐

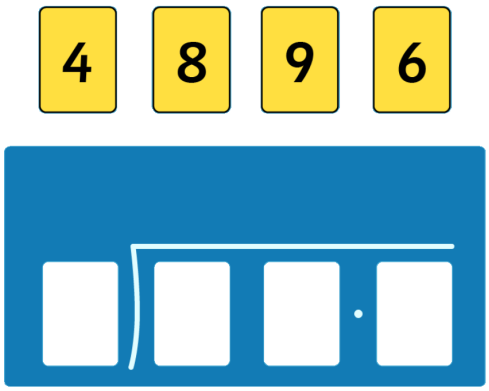
3.6 ÷ 4 = ☐ ÷ 8

The table shows the heights of a group of children. What is their mean height in metres?

Heights of children

name	height (m)
Anna	1.42
Ryder	1.12
Sabrina	1.28
Clay	1.51
Leonie	1.42

*Using each digit card **once**, make the division calculation with the greatest possible answer. What is the answer to the decimal calculation?*



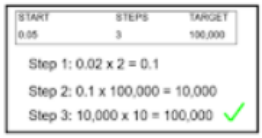
START	STEPS	TARGET
0.05	3	100,000

Step 1: 0.02 x 2 = 0.1

Step 2: 0.1 x 100,000 = 10,000

Step 3: 10,000 x 10 = 100,000 ✓

Starting with the number 0.05 use the stated number of steps to reach the target of 100,000 using multiplication only!



a) 10 steps

b) 2 steps

c) 5 steps

d) 20 steps

e) 5 steps without multiplying by an odd number

f) Using a fraction

g) Repeat starting with a different decimal, and then another.....

START	STEPS	TARGET
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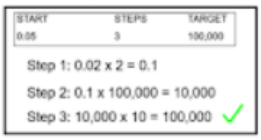

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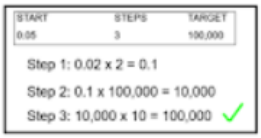

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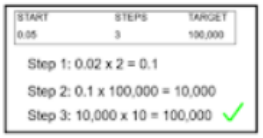


a) 10 steps

b) 2 steps

c) 5 steps

d) 20 steps

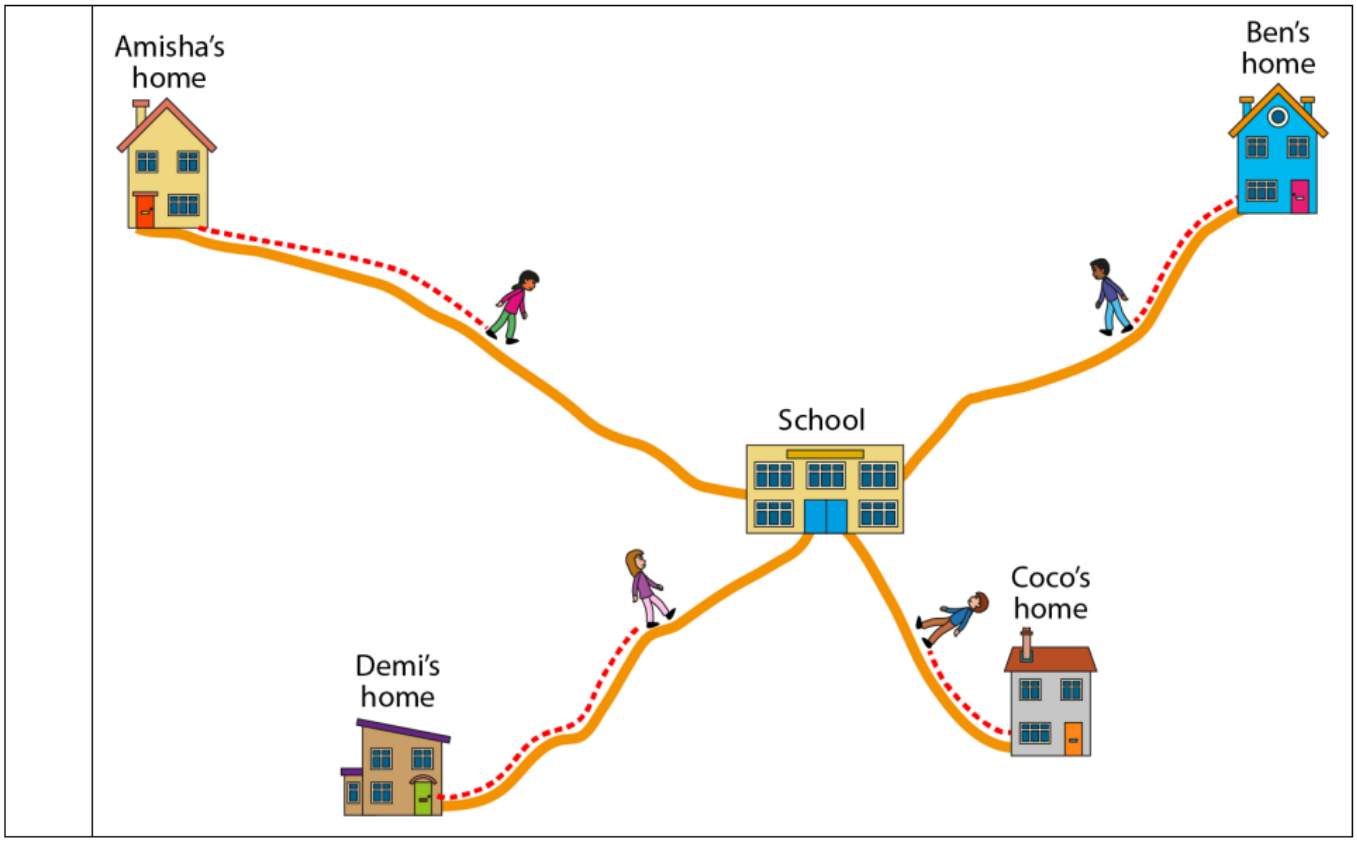
e) 5 steps without multiplying by an odd number

f) Using a fraction

g) Repeat starting with a different decimal, and then another.....

Thursday 13.03.2025

MPI: Understanding percentage



Which two children have walked about the same distance so far?

Which two children have walked about the same percentage of their journey?

Who has walked the furthest?

Who has completed the greatest percentage of their walk?

Who is less that 50% of the way through their walk to school?

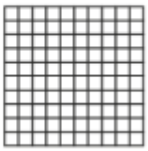
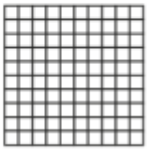
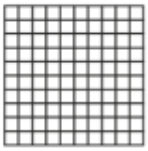
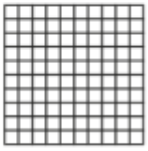
Who has walked the shortest distance so far?

BONUS CHALLENGE:

Draw your own similar image, asking questions for a partner to answer about it, relating to percentage.

Friday 14.03.2025

MPI: Understanding that percentages have decimal and fraction equivalents

Percentage	Fraction	Hundred square	Number line	Decimal
80%	$\frac{\square}{100}$		0% 100%	
45%	$\frac{\square}{100}$		0% 100%	
31%	$\frac{\square}{100}$		0% 100%	
9%	$\frac{\square}{100}$		0% 100%	

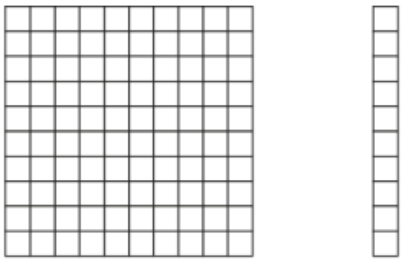
$$80\% = \frac{\square}{100} = \frac{\square}{5}$$

$$45\% = \frac{\square}{100} = \frac{\square}{20}$$

Match the equivalent fractions, decimals and percentages.

$\frac{15}{100}$	0.05	5%
$\frac{1}{20}$	0.5	15%
$\frac{1}{5}$	0.2	50%
$\frac{1}{2}$	0.15	20%

'Shade 70% of each of these shapes.'



- *'Complete the missing information in this table.'*

Fraction	Decimal	Percentage
		43%
	0.27	
$\frac{1}{5}$		
		75%
	0.09	
$\frac{30}{100}$		
	0.61	
		80%

Fill in the missing numbers.

a) $\frac{9}{10} = \frac{\square}{100} = \square\%$

b) $\frac{9}{20} = \frac{\square}{100} = \square\%$

c) $\frac{9}{50} = \frac{\square}{100} = \square\%$

d) $\frac{9}{25} = \frac{\square}{100} = \square\%$