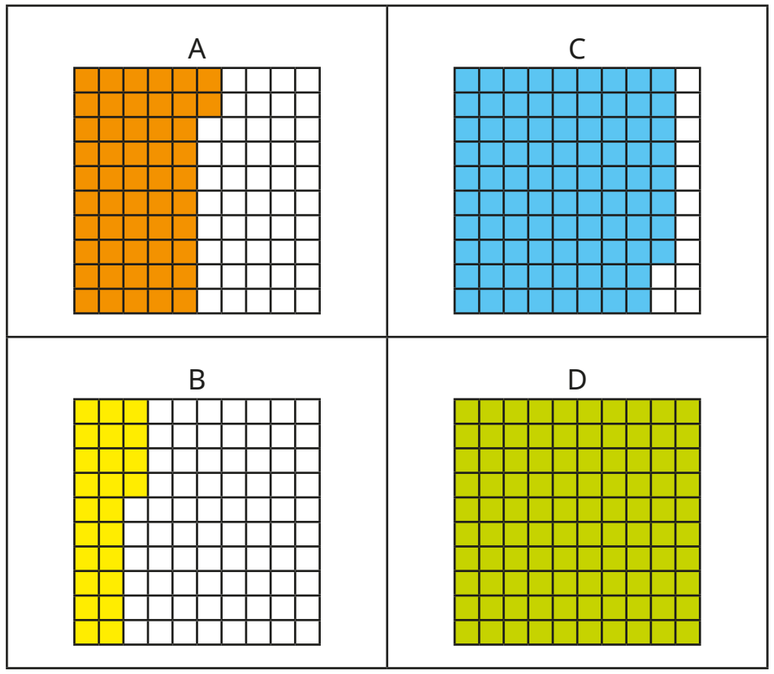
Percentages as fractions

1 Here are four hundred squares.

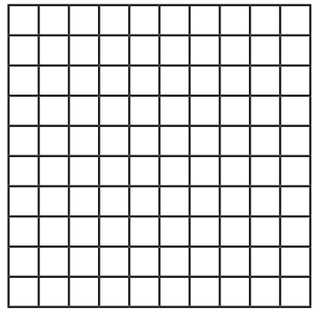


Complete the table to show what percentage and what fraction of each hundred square is shaded.

Hundred square	Percentage	Fraction
A		$\frac{52}{100}$
B	24%	
C		
D		

2 **a)** Prove that $\frac{1}{10}$ is equal to 10%.

You may use the hundred square to help you.



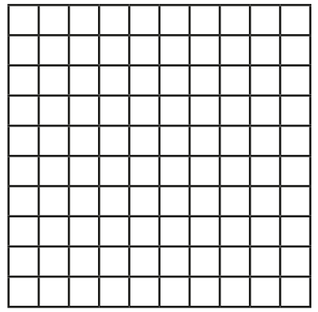
b) Use the fact that $\frac{1}{10}$ is equal to 10% to complete the equivalents.

$\frac{3}{10} = \square\%$ $\qquad \frac{\square}{10} = 90\%$

$\frac{7}{10} = \square\%$ $\qquad \frac{\square}{10} = 50\%$

3 **a)** Prove that $\frac{1}{5}$ is equal to 20%.

You may use the hundred square to help you.



b) Use the fact that $\frac{1}{5}$ is equal to 20% to complete the equivalents.

$\frac{2}{5} = \square\%$ $\qquad \frac{\square}{5} = 60\%$

$\frac{4}{5} = \square\%$ $\qquad \frac{\square}{5} = 100\%$

4 Write <, > or = to complete the statements.

a) 50% ◯ $\frac{5}{100}$

b) 25% ◯ $\frac{50}{100}$

c) 14% ◯ $\frac{41}{100}$

d) $\frac{40}{100}$ ◯ 40%

e) $\frac{70}{100}$ ◯ 7%

f) 82% ◯ $\frac{82}{100}$

5 Write the values in order from smallest to greatest.

a) 33% $\frac{30}{100}$ 3% $\frac{13}{100}$

_____

b) 99% $\frac{91}{100}$ 9% $\frac{9}{10}$

_____

6 Is the statement always true, sometimes true or never true?

_____

> To convert a fraction to a percentage, you just need to write a percentage sign next to the numerator.

Give examples to support your answer.

_____

_____

_____

7 Tick all the fractions that are greater than or equal to 50%.

$\frac{10}{50}$	$\frac{4}{5}$	$\frac{50}{100}$
$\frac{30}{80}$	$\frac{1}{50}$	$\frac{70}{140}$

Compare answers with a partner.

8 Jack and Dora go shopping with the same amount of money.

Jack spends $\frac{1}{3}$ of his money.

Dora spends 30% of her money.

a) Who spends more money? _____

Use fraction and percentage equivalence to explain your answer.

b) Jack and Dora each started with £300

How much money do they each have left?

Jack ☐ Dora ☐