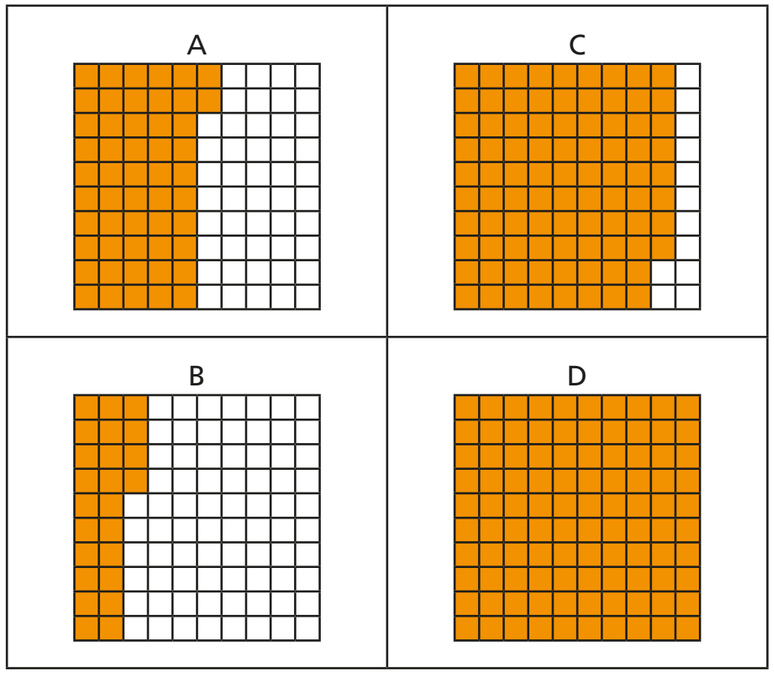
Percentages as fractions and decimals

1 Here are four hundred squares.

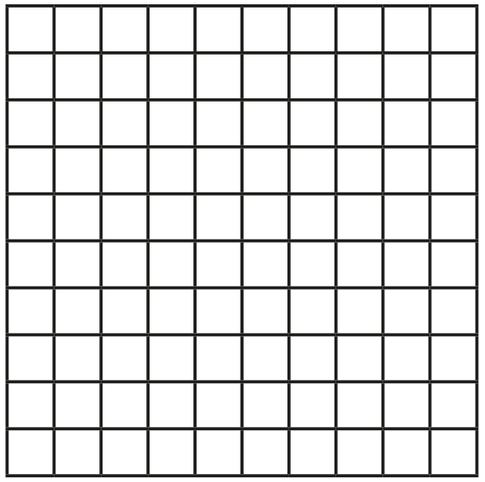


Complete the table.

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

2 Prove that 0.2 is equal to 20%.

You may use the hundred square to help you.



Why do you think some people think that 0.2 is equal to 2%?

3 Complete the fraction, decimal and percentage equivalents.

a) 32% = $\frac{\square}{100}$ = $\square$

35% = $\frac{\square}{100}$ = $\square$

48% = $\frac{\square}{100}$ = $\square$

b) $\frac{17}{100}$ = $\square$ % = $\square$

$\frac{9}{100}$ = $\square$ % = $\square$

$\frac{90}{100}$ = $\square$ % = $\square$

c) 0.29 = $\square$ % = $\frac{\square}{100}$

0.71 = $\square$ % = $\frac{\square}{100}$

0.03 = $\square$ % = $\frac{\square}{100}$

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) 299% $\frac{91}{100}$ 9% $\frac{9}{10}$

_____

c) 2.5 $\frac{25}{100}$ 250 25% of 100 $\frac{25}{1000}$

_____

6 Convert the fractions to hundredths.

Complete the decimal and percentage equivalents.

a) $\frac{150}{300} = \frac{\square}{100} = \square = \square$ %

b) $\frac{25}{500} = \frac{\square}{100} = \square = \square$ %

c) $\frac{48}{300} = \frac{\square}{100} = \square = \square$ %

d) $\frac{18}{50} = \frac{\square}{100} = \square = \square$ %

e) $\frac{13}{25} = \frac{\square}{100} = \square = \square$ %

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

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

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 ☐