

Lesson 5

Percentages : Year 9

Non Calculator

5.1 TEST

A useful table of common fractions with percentage equivalents

$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{10}$	$\frac{1}{20}$	$\frac{1}{25}$	$\frac{1}{50}$	$\frac{1}{100}$
50%	$33\frac{1}{3}\%$	25%	20%	10%	5%	4%	2%	1%

Question 1

Convert the following common fractions into percentages;

(i)

$$\frac{4}{5}$$

(ii)

$$\frac{3}{20}$$

(iii)

$$\frac{3}{25}$$

(iv)

$$\frac{13}{50}$$

(v)

$$\frac{24}{25}$$

(vi)

$$\frac{9}{20}$$

(vii)

$$\frac{47}{50}$$

(viii)

$$\frac{41}{100}$$

(ix)

$$\frac{5}{4}$$

(x)

$$\frac{11}{20}$$

(xi)

$$\frac{21}{20}$$

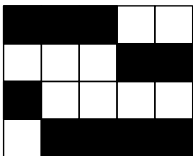
(xii)

$$\frac{1}{8}$$

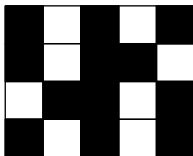
Question 2

What percentage of the grid is shaded ?

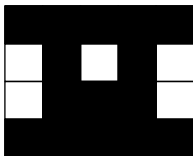
(i)



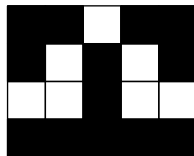
(ii)



(iii)



(iv)



Question 3

Convert the following percentages into common fractions;

The fractions should be in as simple a form as possible.

(i) 30% (ii) 75% (iii) 8%

(iv) 60% (v) $66\frac{2}{3}\%$ (vi) 6%

(vii) 16% (viii) 96% (ix) 99%

(x) $133\frac{1}{3}\%$ (xi) 225% (xii) 44%

Question 4

(i) Shade in 4%

(ii) Shade in 20%

(iii) Shade in 24%

(iv) Shade in 92%

Question 5

Increase £80 by 10%

Question 6

Increase 120 cm by 25%

Question 7

Increase 40 kg by 15%

Question 8

Increase 200° by 17%

Question 9

Decrease 70 m.s^{-1} by 30%

Question 10

Decrease \$50 by 1%

Question 11

Decrease 12 kg by 90%

Question 12

Decrease 45 cm by $33\frac{1}{3}\%$

Question 13

What percentage of 50 kg is 40 kg ?

Question 14

What percentage of £21 is £14 ?

Question 15

Mavis gets only one question wrong in a twenty-five question test.
What percentage of questions has she got correct ?

Question 16

Here is a grid of square numbers.

S Q U A R E S
U P T O
1 0 0

1			4				9	
				16				
			25					
			36					
						49		
		64						
81								
								100

What percentage of the first 100 integers are square ?

Question 17

In a hospital, 40 toilets are tested for a superbug.

The tests show that 14 of the toilets were contaminated by the superbug.

What percentage of the toilets tested were contaminated by the superbug ?

Question 18

Rachael eats 49% of a lemon drizzle cake, and Michael eats 37% of it.
How much cake remains for me to eat ?

Question 19

A second hand car salesman charges 4% commission on every car he sells.
How much commission will he earn on a car that he sells for £13 000 ?

Question 20

(i) What is 4% of £250 ?

(ii) What is 16% of £50 ?

(iii) What is 32% of £75

(iv) What is 96% of £125 ?

(v) Increase £250 by 54%

(vi) Decrease £200 by 92%

Question 21

(i) What is 20% of 360° ? (ii) What is 30% of 360° ?

(iii) What is 25% of 360° ?

In a survey,

- 20% of the people asked said they were Christian
- 30% of the people asked said they were Athiest
- 25% of the people asked said they were Roman Catholic
- The remainder said they were Jedi.

(iv) In the space below draw an accurate Pie Chart to represent this information.

(v) What percentage of people said they were Jedi ?

(vi) How many degrees is this on the Pie Chart ?