

% % % % % % % % % % % % % %

P E R C E N T A G E S

% %

~ I I ~



PERCENTAGES II

Lesson 1

GCSE (Year 10) Mathematics
Percentages II

Non Calculator

1.1 Mental Arithmetic Percentages

In “Percentages I” good use was made of the following table to do many calculations without the need to use a calculator. It shows many common fractions and their 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%

With this table in mind, tackle the following exercise, intended as revision.

1.2 Twenty-One Quick Percentage Questions

Twenty-One Today

Work quickly, but accurately.

You have 25 minutes to answer as many questions as you can.

Do NOT use a calculator - show your working

Question 1

10 % when written as a common fraction, is $\frac{1}{10}$

Write 70 % as a common fraction.

Answer : _____

Question 2

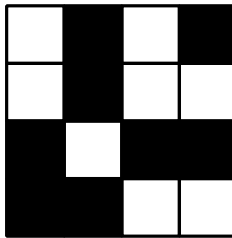
$\frac{1}{5}$ when written as a percentage is 20 %

Write $\frac{4}{5}$ as a percentage.

Answer : _____

Question 3

What percentage of the squares in this diagram are black ?



Answer : _____

Question 4

What is 10 % of £4.80 ?

Answer : _____

Question 5

5 % when written as a common fraction is $\frac{1}{20}$

Write 45 % as a common fraction.

Answer : _____

Question 6

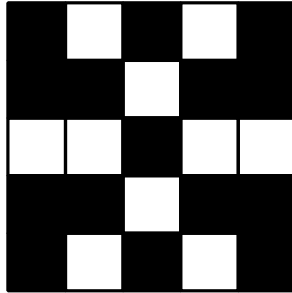
$\frac{1}{25}$ when written as a percentage is 4 %

Write $\frac{6}{25}$ as a percentage.

Answer : _____

Question 7

What percentage of the squares in this diagram are black ?



Answer : _____

Question 8

What is 20 % of £14.50 ?

Answer : _____

Question 9

25 % when written as a common fraction is $\frac{1}{4}$

Write $12\frac{1}{2}$ % as a common fraction.

Answer : _____

Question 10

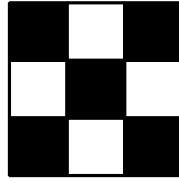
$\frac{1}{9}$ when written as a percentage is $11\frac{1}{9}$ %

Write $\frac{2}{9}$ as a percentage.

Answer : _____

Question 11

What percentage of the squares in this diagram are black ?



Answer : _____

Question 12

What is 25 % of £8.48 ?

Answer : _____

Question 13

Increase £8 by 15 %

Answer : _____

Question 14

Decrease £8 by 15 %

Answer : _____

Question 15

I open a savings account with £400.

It pays interest at 4 % per annum.

How much is in my account after one year ?

Answer : _____

Question 16

5 % when written as a common fraction is $\frac{1}{20}$

Write 95 % as a common fraction.

Answer : _____

Question 17

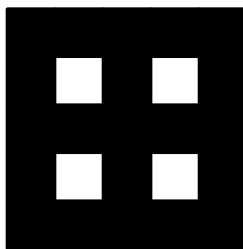
$\frac{1}{25}$ when written as a percentage is 4%

Write $\frac{24}{25}$ as a percentage.

Answer : _____

Question 18

What percentage of the squares in this diagram are black ?



Answer : _____

Question 19

$\frac{1}{6}$ when written as a percentage is $16\frac{2}{3}\%$

Write $\frac{5}{6}$ as a percentage.

Answer : _____

Question 20

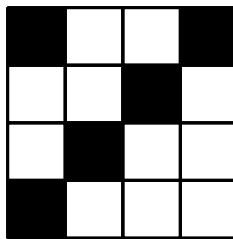
$6\frac{1}{4}\%$ when written as a common fraction is $\frac{1}{16}$

Write $93\frac{3}{4}\%$ as a common fraction.

Answer : _____

Question 21

What percentage of the squares in this diagram are black ?



Answer : _____