



Fractions, Decimals and Percentages.

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Total Marks: 40 marks

Total Time: 30 minutes

Show working and answers on this sheet. Show working in sufficient detail to support your answers. Incorrect answers without supporting reasoning may be allocated zero marks.

1 page of notes (A4 Handwritten) allowed

Question 1

2 marks

Match the definition on the left-hand side with the correct word on the right-hand side by drawing a line between each one:

-1/2 per error

A fraction where the numerator is equal to, or larger than the denominator.	Improper fraction
A fraction consisting of a whole number and a proper fraction.	Denominator
The top number in a fraction. It shows how many parts we have.	Proper Fraction
A fraction where the numerator is smaller than the denominator.	Mixed Number
The bottom number in a fraction. It shows how many equal parts the item is divided into.	Numerator

(Handwritten lines connect: Improper fraction to 'A fraction where the numerator is equal to, or larger than the denominator.'; Denominator to 'The bottom number in a fraction...'; Proper Fraction to 'A fraction where the numerator is smaller than the denominator.'; Mixed Number to 'A fraction consisting of a whole number and a proper fraction.'; Numerator to 'The top number in a fraction...')

Question 2

2 mark

a) What is $\frac{7}{100}$ converted to a percentage?

A 0.07% B 70% C 7% D 0.7%

b) What is $\frac{21}{100}$ converted to a percentage?

A 0.02% B 210% C 12% D 21%

Question 3

2 mark

a) What is 0.09 converted to a fraction?

A $\frac{1}{90}$ B $\frac{9}{100}$ C $\frac{1}{9}$ D $\frac{9}{10}$

b) What is 0.73 converted to a fraction?

A $\frac{73}{100}$

B

C $\frac{7}{10}$

D $\frac{1}{73}$

$\frac{37}{100}$

Question 4

2 marks

Convert each fraction to a decimal.

a $\frac{3}{5}$

$3 \div 5 = 0.6$



$\frac{1}{2}$ marks for correct working

b $\frac{7}{8}$

$7 \div 8 = 0.875$



Question 5

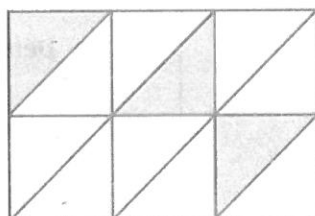
1 mark

What fraction of this shape is shaded? (Simplest Form)

B $\frac{1}{3}$

C $\frac{1}{8}$

D $\frac{1}{4}$



Question 6

2 mark

As a percentage, $\frac{1}{4}$ is equal to:

A 40%

B 20%

C 25%

D 10%

As a percentage, $\frac{13}{100}$ is equal to:

A 13%

B 31%

C 3%

D 10%

Question 7

6 marks

Express each of the following as a fraction in its simplest form and as a percentage.

A Mike scored 8 out of ten in his mental maths test.

$\frac{1}{2}$ marks if not simplified
Fraction $\frac{8}{10} = \frac{4}{5}$ ✓

Percentage 80% ✓

B Janine shot 88 out of 100 goals at netball.

Fraction $\frac{88}{100} = \frac{22}{25}$ ✓

Percentage 88% ✓

C Kim scored 18 out of 25 in her test.

Fraction $\frac{18}{25}$ ✓

Percentage 72% ✓

Question 8

1 mark

What is 30% as a fraction in its simplest form?

- A $\frac{1}{3}$ B $\frac{3}{10}$ C $\frac{1}{30}$ D 33.3

Question 9

2 mark

a) What is 120% as a decimal?

- A 12.0 B 0.12 C 1.2 D 1.05

b) What is 15% as a decimal?

- A 15 B 150 C 1.5 D 0.15

Question 10

6 marks

Calculate:

- a 10% of \$220

$$10 \div 100 \times 220 = \$22$$

- b 50% of \$96

$$50 \div 100 \times 96 = \$48$$

- c 20% of 35 kg

$$20 \div 100 \times 35 = 7 \text{ kg}$$

Question 11

6 marks

Calculate:

- a $\frac{2}{5}$ of \$40

$$2 \div 5 \times 40 = \$16$$

- b $\frac{3}{4}$ of \$16

$$3 \div 4 \times 16 = \$12$$

- c $\frac{17}{20}$ of 400 kg

$$17 \div 20 \times 400 = 340 \text{ kg}$$

Question 12**2 marks**

Jasmine spent 75% of her pocket money on badges. If she spent \$21, how much was her pocket money?

$$21 \div 100 \times 75 = \$28$$

Question 13**6 marks**

Round each number to the leading digit (first digit) to approximately evaluate the following using estimation?

a) $2.1 \times 3.4 = 2 \times 3 = 6$ ✓

b) $449 + 453 = 400 + 500 = 900$ ✓

c) $12.34 - 5.93 = 10 - 6 = 4$ ✓

d) $47 \times 2.3 = 50 \times 2 = 100$ ✓

e) $123 \div 11 = 100 \div 10 = 10$ ✓

e) $63.2 \div 5.7 = 60 \div 6 = 10$ ✓