

Name .....

3<sup>rd</sup> Year November Assessment

Non-Calculator

30 Minutes

Q1.

Work out  $64.32 \div 0.12$

(Total 2 marks)

Q2.

An exam has two papers.

Anil scores

33 out of 60 on paper 1

and

75 out of 100 on paper 2

Work out his percentage score for the exam.

(Total 3 marks)

Q3.

(a) Work out  $2.4 \times 0.002$

(1)

(b) Write  $1.2 \times 10^{-5}$  as an ordinary number.

(1)

(c) Write 2 500 000 in standard form.

(1)

(Total 3 marks)

Q4.

One lap of a racing circuit is  $3\frac{3}{4}$  km

Work out the total distance for  $4\frac{1}{2}$  laps.

(Total 3 marks)

Q5.

Written as the product of its prime factors

$$672 = 2^5 \times 3 \times 7$$

(a) Write 252 as the product of its prime factors.

(2)

(b) Work out the value of the highest common factor of 672 and 252

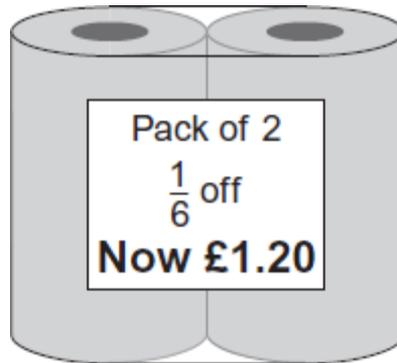
(1)

(Total 3 marks)

Q6.

The price of a pack of kitchen rolls is reduced by  $\frac{1}{6}$

The new price is £1.20



Work out the original price.

(Total 3 marks)

Q7.

Express  $0.1\dot{5}$  as a fraction in its simplest form.

(Total 3 marks)

Q8.

Here is a formula to convert degrees Celsius ( $^{\circ}\text{C}$ ) to degrees Fahrenheit ( $^{\circ}\text{F}$ ).

$$F = 1.8C + 32$$

$F$  is the number of degrees Fahrenheit

$C$  is the number of degrees Celsius

(a) Show that  $-40^{\circ}\text{C} = -40^{\circ}\text{F}$

(1)

(b) The temperature is  $-15^{\circ}\text{C}$

Nick says,

“Because the temperature is negative in Celsius, it must be negative in Fahrenheit.”

Is he correct?

You must show your working.

(1)

(Total 2 marks)

Q9.

The scale on a map is 1 : 200 000

Work out the number of kilometres represented by 2.5 cm on the map.

(Total 2 marks)

Q10.

During a game, players can win and lose counters.

At the start of the game

Rob, Tim and Zak share the counters in the ratio 5 : 6 : 7

At the end of the game

Rob, Tim and Zak share the same number of counters in the ratio 7 : 9 : 8

Show that Rob ends the game with more counters than he started with.

(Total 3 marks)

Q11.

The universe is  $1.38 \times 10^{10}$  years old.

The Earth is  $4.54 \times 10^9$  years old

How long was there in between the creation of the universe and the Earth?

Write your answer in standard form

(Total 2 Marks)

