Multiple-choice section – choose the correct answer

Question 1 [2.1]

The fraction  written as a decimal is:

A 1.45 B 1.54 C 1.8 D 1.08

Question 2 [2.1]

The decimal 0.24 written as a fraction is:

A  B  C  D 

Question 3 [2.2]

 written as a decimal is:

A 0.1 B 0.11 C 0.111 D 

Question 4 [2.3]



A 0 B  C  D 

Question 5 [2.4]

This is a water jug with evenly spaced marks on the side.



It appears to be:

A about 30% full B about 70% full

C about 70% empty D about 60% empty

Question 6 [2.5]

The fraction  as a percentage is:

A 16% B 61% C 16% D 

Question 7 [2.5]

The decimal 8.25 as a percentage is:

A 8.25% B 82.5% C 825% D 8250%

Question 8 [2.6]

The percentage 75% written as a decimal is:

A 7.5 B 0.75 C 0.075 D 0.0075

Question 9 [2.6]

The percentage 160% written as a fraction is:

A  B  C  D 

Question 10 [2.7]

45 seconds out of 2 minutes is:

A 452% B 3.75% C 37.5% D 375%

Question 11 [2.8]

30% of $780 is:

A $2340 B $234 C $23.40 D $2.34

Question 12 [2.9]

When $1800 is increased by 40% it becomes:

A $2520 B $1840 C $1480 D $720

Multiple-choice results: \_\_\_ / 12

Short answer section

Question 13 4 marks [2.1]

Write the number  as a:

(a) decimal (b) percentage.

Question 14 6 marks [2.2]

Use a calculator to write the following as decimals and classify them as terminating, recurring or irrational.

(a)  (b)  (c) 

Question 15 2 marks [2.2]

Find the fraction equivalent to .

Question 16 6 marks [2.3]

List the numbers from smallest to largest.

(a) , , , ,  (b) -3.5, -0.2, 0.9, -2.6, -9.9

Question 17 6 marks [2.3]

Write the following in simplest form.

(a)  (b) 

(c) -2.652 – 4.1

Question 18 4 marks [2.5]

Write the following as percentages.

(a) 9.08 (b) 0.001

Question 19 4 marks [2.6]

Write the following as decimals.

(a) 42% (b) 84.2%

Question 20 4 marks [2.6]

Write the following as fractions.

(a) 415% (b) 2.8%

Question 21 2 marks [2.7]

Write 100 metres as a percentage of 150 metres.

Question 22 4 marks [2.6]

A mobile phone has a display that shows how much power is left in the battery.

(a) The phone shows that the battery has 28% of power remaining. Write the percentage of power remaining as fraction.

(b) After charging for 1 hour, the phone shows that it has 85% of power remaining. Write the percentage of power remaining as a decimal.

Question 23 4 marks [2.7]

A sound engineer buys an antique stereo for $820. He repairs it and then sells it for $1085.

(a) What profit did he make?

(b) What was the percentage profit to the nearest whole number?

Question 24 4 marks [2.8]

Fifty-five per cent of the people living in a suburb have their milk delivered. There are 24 000 people living in the suburb.

(a) How many people have milk delivered?

(b) How many people don’t have milk delivered?

Question 25 2 marks [2.9]

The value of a house worth $4 200 000 increases by 12% over the year. Find the new value of this house.

Question 26 4 marks [2.9]

A luxury car worth $300 000 is damaged by a storm. The car dealer decides to sell it at a   
30% discount.   
Find the:

(a) amount that the car is reduced by

(b) new, reduced selling price of the car.

Question 27 4 marks [2.10]

A bookshop marks all of its goods up by 40% to make a profit.  
Find the selling price of:

(a) a dictionary with a cost price of $40

(b) a set of books with a cost price of $85.

Short answer results: \_\_\_ / 60

Extended answer section

Question 28 6 marks [2.1]

Lucinda buys 2.4 metres of material that is priced at $8.99 per metre.

(a) How much does the material cost?

(b) If Lucinda pays cash for the material, how much does she pay?

(c) A similar material is $100 for a roll of 15 metres. How much does this material cost per metre?

(d) Which is the better buy? Give reasons for your answer.

Question 29 7 marks [2.2]

Sam the snail is entered into a 60-metre snail race. In the first 20 minutes he travelled  of the race distance. In the next 20 minutes he travelled of the race distance and in the 20 minutes after that, he travelled  of the race distance.

(a) Calculate the distance Sam travelled in each 20-minute period.

(b) How far did Sam have to travel to the finish line after the end of the third 20-minute period?

(c) Write the distance that Sam needs to travel to finish the race at the end of the third 20-minute period as a fraction of:

(i) the length of the race

(ii) the total distance travelled.

Question 30 4 marks [2.5]

The test scores achieved in four areas by a student are shown below. The decimal was found by dividing the actual mark by the total mark.

AREA SCORE

Spelling 0.725

Punctuation 0.8

Reading 0.65

Writing 0.925

(a) What is the student’s percentage score in Spelling?

(b) What is the student’s percentage score in Writing?

(c) What is the percentage difference between the Spelling and Writing scores?

Question 31 2 marks [2.8]

The students with brown hair in Year 5 at a primary school make up 85% of its population.

(a) What percentage of the students do not have brown hair?

(b) If there are 20 students in Year 5, then how many have brown hair?

Question 32 6 marks [2.10]

A seven-day pass to a theme park has a price of $135.

(a) A 10% discount is offered to members of the theme park. What is the price of the pass for them?

(b) Last year, the price of same pass was $120. What is the percentage increase?

(c) Next year, the price will rise by 7%. What will be the price then?

Extended answer results: \_\_\_ / 25

TOTAL test results: \_\_\_ / 97