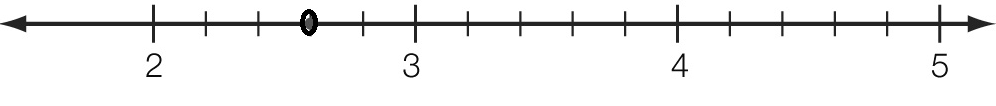
Multiple-choice section

Question 1 [4.1]



The point marked is closest to:

A 2.32 B 2.5 C 2.59 D 2.63

Question 2 [4.4]

Jan measures her four attempts at long jump. They were 4.2 metres, 4.38 metres, 4.65 metres and 4.069 metres. The difference between her longest and shortest jump is

A 0.45 B 0.131 C 0.581 D 0.59

Question 3 [4.2]

5.396 rounded to two decimal places is:

A 5.3 B 5.4 C 5.39 D 5.40

Question 4 [4.2]

Which of the following cannot be rounded to 3.68?

A 3.684 B 3.688 C 3.679 D 3.675

Question 5 [4.3]

5.35 as a fraction in simplest form is:

A  B  C  D 

Question 6 [4.5]

2.4 × 0.05 =

A 1.2 B 0.12 C 0.012 D 12

Question 7 [4.6]

0.488 ÷ 0.041 is closest to:

A 1.22 B 0.122 C 12.2 D 122

Question 8 [4.7]

0.06 written as a percentage is:

A  B 6% C 60% D 

Question 9 [4.8]

Find 15% of $40.

A $6.00 B $0.60 C $3.00 D $0.30

Question 10 [4.8]

Amanda has collected eight of the 24 dolls in a set. What percentage of dolls does she need to complete the set? Round your answer to 1 decimal place.

A 6.7% B 33.3% C 3.3% D 66.7%

Question 11 [4.9]

Sam has six birds, two dogs and four cats as pets. The ratio of dogs to cats to total number of pets is?

A 1 : 2 : 3 B 2 : 4 : 6 C 1 : 2 : 6 D 2 : 4 : 10

Question 12 [4.10]

If 20 dogs eat 15 kg of mince, how much mince would 12 dogs eat?

A 9 kg B 7.8 kg C 7.5 kg D 1.5 kg

Multiple-choice total marks: \_\_\_\_ / 12

Short answer section

Question 13 5 marks

Use words from the list below to complete the following sentences.

*add divide denominator multiply numerator ratio  
rate repeat recurring subtract terminating*

(a) To write a fraction as a decimal you \_\_\_\_\_\_\_\_\_ the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(b) A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ decimal is one that has a repeating pattern of digits.

(c) A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a comparison of two or more quantities using a ‘:’ symbol.

Question 14 2 marks [4.6]

James divided 6 by 0.5 and got the wrong answer of 3. What has James done wrong? What should the correct answer be?

Question 15 2 marks [4.1]

Write the following as decimals.

(a) 4 tens, 3 hundredths and 6 thousandths

(b) 

Question 16 3 marks [4.1]

Place a greater than (>) or less than (<) symbol to make each of the following true.

(a) 506 \_\_\_\_\_\_ 50.6

(b) 0.0345 \_\_\_\_\_\_ 0.03045

(c) 4.567 \_\_\_\_\_\_\_ 4.5671

Question 17 2 marks [4.1]

Write the following in ascending order.

(a) 3.21, 3.12, 3.021 (b) 0.05074, 0.05704, 0.00574

Question 18 2 marks [4.2]

A decimal with 3 decimal places was rounded to 3.40. Write two possible answers, one of which must not contain the digit 4.

Question 19 2 marks [4.2, 4.4, 4.5]

If Daniel bought four toothbrushes at $1.67 each and paid in cash:

(a) how much would he actually have to pay for the toothbrushes?

(b) how much change would he get from $10.00?

Question 20 6 marks [4.7]

Complete the table.

|  |  |  |
| --- | --- | --- |
| Fraction (simplest form) | Decimal | Percentage |
|  | 0.1 | 10% |
|  | 0.333… |  |
|  |  | 36% |
|  |  |  |
|  | 0.125 |  |
|  |  | 7.5% |
|  |  |  |

Question 21 2 marks [4.3]

A flea is approximately  of a metre long. Write this length as a decimal.

Question 22 2 marks [4.3]

Calculate the division and write the solution using recurring decimal notation.

(a)  (b) 

Question 23 2 marks [4.4]

Calculate the following.

(a) 6 + 3.457 + 1.26 (b) 23.4 – 6.75

Question 24 3 marks [4.5]

Calculate the following.

(a) 4.5 × 5 (b) 0.125 × 300 (c) 0.56 × 0.03

Question 25 4 marks [4.6]

Calculate the following.

(a) 0.0566 ÷ 4 (b) 0.045 ÷ 0.9

Question 26 3 marks [4.6]

Bus hire for an excursion was $567.50. If 30 students went on the excursion, what was the cost per student for the bus? (Round your answer appropriately.)

Question 27 6 marks [4.8]

(a) Find 15% of 140. (b) Find 37.5% of 160.

Question 28 2 marks [4.8]

Marco received 37 marks out of 40 in his spelling test. What percentage was this?

Question 29 3 marks [4.10]

Bella and Sophie compete in a 100 m race. When they compared their results Bella ran the fastest and her time was 80% of Sophie’s time. Bella completed the race in 12 seconds, how long did Sophie take to complete the race?

Question 30 4 marks [4.9]

Complete the equivalent ratios.

|  |  |
| --- | --- |
| (a) 12 : 30  : 5  8 : | (b) 6 : 15 : 21 4 : : |

Question 31 3 marks [4.10]

If it takes 2.5 minutes to fill a 4 L bucket, how long will it take to fill a 5 L bucket (to the nearest minute)?

Short answer total: \_\_\_\_\_\_\_\_\_ / 58

Extended answer section

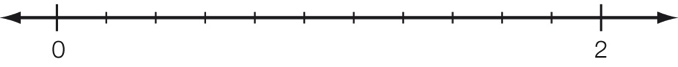
Question 32 7 marks [4.1, 4.4, 4.5, 4.6]

(a) Mark the positions of the following decimals on the number line below:

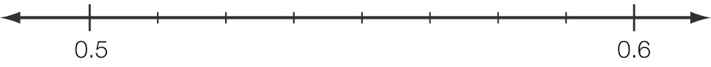
(i) 0.95

(ii) 1.4

(iii) 0.05



(b) The interval between 0.5 and 0.6 has been magnified as shown below. There are eight sub-intervals marked. What is the size of each subinterval?



(c) Two points A and B have been marked on the interval below. Write the values of points A and B.



(d) What is the value of the decimal that is halfway between 0.6 and 1.7. (You may use any of the number lines above to help you find the answer.)

Question 33 8 marks [4.4, 4.5, 4.6, 4.8, 4.9]

(a) Anita is a 100 m hurdler in training for the Pacific Games. In her last three races her times have been 16.34 seconds, 16.06 seconds and 16.19 seconds. If her fourth race was 0.13 seconds faster than her fastest time, what was her time for the race?

(b) Anita’s coach wanted to calculate her average time for her past four races, so he added up the times and divided by 4. What was the average time calculated by Anita’s coach?

(c) As part of her training, Anita needs to consume 10 700 kilojoules daily, which is broken up into serves. She is to have three serves for breakfast, one serve for morning tea, two serves for lunch and one serve each for afternoon tea and dinner. How many kilojoules should Anita consume at breakfast?

(d) What is the ratio of Anita’s breakfast intake to her lunch intake? Write your answer in simplest form.

(e) On days that Anita does not train she is recommended to have only 65% of her daily kilojoule intake. What is her daily kilojoule intake on these days?

Question 34 12 marks [4.7, 4.8, 4.9, 4.10]

Maggie found the following recipe to make sponge cake:

50 g cornflour 50 g plain flour

50 g self-raising flour 240 g eggs (4 x 60g)

160 g caster sugar

(a) Calculate what fraction of the cake (in simplest form) is each ingredient.

(b) Maggie found she had six eggs (60 g each) in the fridge and decided to use all of them to make the cake. What quantities does she need of the other ingredients?

(c) When Maggie went to the supermarket she found the following unit pricing for the ingredients:  
100 g cornflour $0.80 100 g plain flour $0.10 100 g caster sugar $0.30  
100 g self-raising flour $0.10 12 eggs (60 g each) $4.80   
If Maggie followed the original recipe how much would the ingredients cost altogether?

(d) Maggie read that the least amount of caster sugar you can use in a cake is 22%. How much less sugar than the original recipe could Maggie use? (Hint: What percentage do the other ingredients have to be?)

Extended answer total: \_\_\_\_\_\_\_\_\_ / 27

TOTAL test marks: \_\_\_\_\_\_\_ / 97