|  |  |
| --- | --- |
|  | Student Name \_\_\_\_Answers\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    **Eastern Goldfields College**  Mathematics Essential U1 2018  Test 1 – Calculator Free1 |
|  |  |

**Time allowed: 20 minutes Task Weighting: 8%** Total Marks: 24 marks

**No calculator or notes permitted for this section.**

**Question 1** [5 marks – 1, 1, 1, 1, 1]

Round each number to the given accuracy:

1. 526 (nearest 100) (b) 27.48 (one decimal place)

500 27.5

(c) $72.434 (nearest dollar) (d) $72.634 (nearest cent)

$72 $72.63

(e) $72.634 (nearest 5c)

$72.65

**Question 2** [2 marks]

Use estimation to find an approximate answer the following and show **ALL** your working.

42 × 67 \*\***No Marks if students don’t estimate**

40 x 70

2800

**Question 3** [5 marks – 1, 1, 1, 1, 1]

(a) 14 + 6 3 (b) 4 (5 + (568))

16 48

(c) 15% of $800 (d) of $120 (e) of $90

$120 $40 $54

**Question 4** [1 mark]

State the value of the 3 in 175.236

3 hundredths

**Question 5** [2 marks]

Two students answer the following question:

30 5 2

Bob says the answer is 12 but Leo insists that the answer is 3. **Who** is correct and **why**?

Bob (1)

**Division is done first because it came first. (1)**

**Question 6** [2 Marks]

Rachel bought a new pair of shoes in a ‘25% off’ sale. Normally the shoes cost $60. How much did Rachel pay for the shoes in the sale?

60 4 = 15 or of 60 = 45

60 – 15 = $45

1 mark for answer and 1 mark for working

**Question 7** [1 Mark]

Rewrite the set of numbers below from smallest to largest.

53.7 53.8 53.745 53.81 53.75

53.7, 53.745, 53.75, 53.8, 53.81

**Question 8** [4 Marks - 1, 1, 1, 1]

(a) Express as a decimal. (b) Express 65% as a decimal.

0.75 0.65

(c) Express as a percentage. (d) Express 0.25 as a fraction (Simplest form).

20%

**Question 9** [2 Marks – ½, ½, ½, ½,]

In each pair, **circle** the amount that has the greater value.

(a) 0·7 or 80% (b)  or 75% (c)  or  (d)  or 

|  |  |
| --- | --- |
|  | Student Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  logo  **Eastern Goldfields College**  Mathematics Essential U1 2018  Test 1 – Calculator Assumed1 |

**Time allowed: 30 minutes Task Weighting: 8%** Total Marks: 25 marks

**One A4 page of notes permitted in this section.**

**Question 1** [2 Marks]

Rhett has $60 000 saved. He is going to use two thirds of his savings as a deposit on a house. How much is his deposit?

60 000 x

$40 000

**Question 2** [3 marks – 1, 2]

Christina is a real estate agent and earns 2.5% of the total value of her sales. One week she sold three houses, one valued at $250 000, one valued at $220 000 and one at $420 000.

1. What was the total of sales for the week?

250 000 + 220 000 + 420 000 = 890 000

1. What commission did she earn?

x 890 000 = $22 250

**Question 3** [4 marks – 2, 2]

John has just commenced his first job ever at J-Mart earning $820 per week. The government pays 9.5% of his wage to his superannuation.

1. Calculate his superannuation for the week.

.095 x 820 = $77.90

1. How many weeks will it take his superannuation to grow to $1500?

= 19.255 so 20 Weeks

**Question 4** [6 marks – 1, 3, 2]

The distance to travel from Kalgoorlie to Esperance by road is 401km. A motorist will travel from Kalgoorlie to Esperance stopping in Kambalda East, Norseman and Grass Patch on the way. This is displayed in the table below:

|  |  |  |
| --- | --- | --- |
| Travel | | Distance |
| Kalgoorlie to Kambalda East | | 60 km |
| Kambalda East to Norseman | | 133 km |
| Norseman to Grass Patch | | 127km |
| Grass Patch to Esperance | | 81 km |
|  | Total |  |

1. Fill in the missing distance
2. What percentage of the trip has been completed:

(i) when he reaches Norseman? (ii) when he reaches Grass Patch?

x 100 = 48.13% x 100 = 79.80%

Allow 48% Allow 80%

1. How far from Kambalda East will the motorist be when the trip is:

(i) half complete? (ii) three quarters complete?

401 2 = 200.5 – 60 = 140.5km 401 x .75 = 300.75 – 60 = 240.75km

**Question 5** [3 marks – 1, 2]

Adrian asked some friends about their favourite meat. The table below shows the results.

(a)For what fraction of the friends is chicken their favourite?

|  |  |
| --- | --- |
| Food | Number who chose it as their favourite |
| Pork | 12 |
| Beef | 10 |
| Chicken | 8 |

= accept either

(b) What proportion of the group prefers pork?

Write your answer as a decimal.

= 0.4

**Question 6** [7 marks – 5, 2]

Three online stores are selling iPad Pro for the following prices:

**RETRO VISUAL**

iPad Pro

$1150

OFF

**HARDLY NORMAL**

iPad Pro

$1199

15% OFF

**RICK SMYTH’S**

iPad Pro

$999

1. Which store offers the best deal and by how much? Show working to support your answer.

Rick Smyth’s - $999 (allow other methods of working)

Hardly Normal – 0.85 x 1199 = $1019.15

Retro Visual - x $1150= $958.33

Retro Visual is the best buy by 999 - 958.33 = $40.67

1. Each store has postage charges as follows:

Rick Smyth’s - $30 Hardly Normal - $15 Retro Visual - $49

Does this affect which store you choose? Explain with calculations.

Rick 999 + 30 = $1029 Hardly 1019.15 + 15 = $1034.15 Retro 958.33 + 49 = 1007.33

No it doesn’t retro visual is still the cheapest. \*\*\* follow through amounts from part A

END OF TEST