Name: Answers Date:

Class:

Baldivis Secondary College

**Year 11 Essentials**

**Test 1, 2020**

**Topic – Number**

/ ~~43~~ 44

7%

**Total Time:** *40 min TOTAL*
**Weighting:** *7 %*
**Equipment:** *Calculator (second section only)*

## NON-CALCULATOR SECTION – 20 mins
## 23 marks

**Question 1** ***4 marks***

Use leading digit estimation for estimating the following answers.

a) 58 x 217

60 x 200 ✓

= 12,000 ✓

b) 1892 ÷ 23

2000 ÷ 20 ✓

~~[illegible]~~ = 100 ✓

**Question 2** ~~8~~ 7 ***marks***

Solve the following

a) $5 + 7 \times 3$

5 + 21 ✓

= 26 ✓

b) $(17 - 5) \times 2^3$

$12 \times 2^3$ ✓

12 x 8 ✓

= 96 ✓

c) $(8 - 5)^2 + 3 \times 2$

$3^2 + 3 \times 2$ –

9 + 3 x 2 –

9 + 6 ✓

= 14 ✓

**Question 3** ***3 marks***

Jack went to the shops and wanted to buy 2 packets of chips for $2.99 each, 3 mars bar for $1.95 each and a bottle of coke for $3.05. Estimate how much this would cost Jack. Show your working.

✓ Chips = $3 x 2 = 6

✓ M Bar = $2 x 3 = 6

Coke = $3

$15 ✓

½ each ½ for multiplying.

15

## Question 4

*4 marks* 6

a) Round the following to 1 decimal place

i) 12.5642 = 12·6 ½ ii)) 15.9967 = 16·0 ½ ✓✓ each

b) Round the numbers in part a) to 2 decimal places

i) 12·56 ½ ii) 16·00 ½ ✓✓

c) Two students Jared and Craig rounded the number 135.7853 to two decimal places
Jared got 135.78 and Craig got 135.79.

Which student is correct? Why? ✓ ✓

Craig because you have to round the 8 up to 9 because it has a 5 next to it.

## Question 5

*4 marks*

In a game of rugby union, a try is worth 5 points and a conversion is worth 2 points. On the weekend Travis managed to score 3 trys and 2 conversions. After the game his mate Mason decided to work out how many points Travis scored for the team using the expression $5 \times 3 + 2 \times 2$.

Mason type the following into a calculator $5 \times 3 = +2 = \times 2$ and got the answer of 34 points which is incorrect, because the team only scored 26 points in the match.

a) Why is Mason's answer wrong? Explain.

He should have used BIMDAS ✓ so the multiplications should have been done first. ✓

b) How many points did Travis actually score?

5 × 3 + 2 × 2 ✓

15 + 4 ✓

= 19

Answers.

## CALCULATOR SECTION – 20 mins
## 20 marks

**Question 6** *8 marks*

Complete the table:

| Fraction | Decimal | Percentage |
|---|---|---|
| $\frac{1}{4}$ | 0.25 | 25 % |
| $\frac{35}{100} = \frac{7}{20}$ | 0.35 | 35 % |
| $\frac{11}{12}$ | 0.9167 | 91.67 % |
| $2\frac{19}{100}$ $\frac{219}{100}$ | 2.19 | 219 % |

✓ each

either.

**Question 7** *2 marks*

Felix requires 3200mm of timber. If timber is only sold in lengths of 500mm, how many lengths of timber does Felix need to buy?

$3200 \div 500 = 6.4$ ✓

= needs to buy 7 lengths of timber. ✓

**Question 8** *5 marks*

?

Solve the follow to 2 decimal places when appropriate

a) $\frac{3}{4}$ *of* 250mL = 187.5ml ✓

b) 0.3 *of* 35g = 10.5g ✓

c) $\frac{2}{3}$ *of* 1300kg 866.67kg ✓✓

↑ rounding

d) 0.125 *of* 90*mg* 11.25mg ✓

**Question 9** *3 marks*

Susan works as a hairdresser at Haircutz and gets paid $25 per hour on a 38 hour working week.

Gerald works at a hair dresser at Styles hair studio and gets paid on a salary of $50 388 p.a.

Who earns more money in a week? Show your working.

$25 × 38 = $950 ✓

$50 388 ÷ 52 = $969 ✓

Gerald earns more in a week ✓

**Question 10** *2 marks*

Jess is currently in her first year of an apprenticeship and is employed for 5 days a week. During the first year Jess will earn $364.85 per week. If she completes her training courses by the end of the year her wage in her second year will increase by $103 per week.

a) What will Jess's wage be in her second year if she completes her training courses?

2nd year / week = $467.85 ✓

b) How much will Jess earn per year as a second year apprentice?

467.85 × 52 = $24,328.20 ✓

**End of Test**