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Year 11 Essential Mathematics Unit 2 Mini Test 2.3 2018 **Topic - Percentages**

SCORE:

/ 25

Full working out MUST be shown to get full marks for each question.

Total Time:

30 minutes

Weighting:

Equipment:

To be provided by the student: Pen, pencil, ruler, scientific calculator, 1 single sided page of A4 notes

Question 1

Find:

[4 marks]

a) The price of a \$124 speaker after the 10% GST has been added

b) Sally's new smart phone cost her \$749.65 including the 10% GST. How much was the base price of her smart phone before the GST was added?

$$749.65 - 11 = 68.15$$
 $\sqrt{68.15 \times 10 = $681.50}$

Question 2

[6 marks]

a) Janaya scored 70% on her latest mathematics test out of 60 marks. How many marks did Janaya score?

42 -60 ×100 = 70%

b) What percentage of \$48 is \$3?

$$3 - 48 \times 100 = 6.25\%$$

c) A plumber's quote is \$350 before GST. What is the total amount you will have to pay, including the 10% GST? 350 × 1.1 = \$385 V

d) An item increases in value by 25% to \$175. What was the original price of the item?

A dress which used to cost \$300 is on sale, with 20% off.

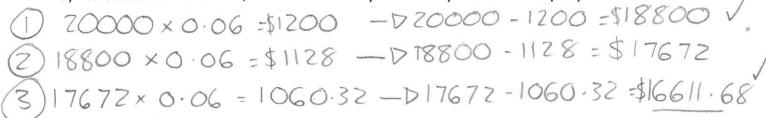
a) How much, in dollars, would you save?

b) How much, in dollars, would you pay for the dress?

Question 4

[4 marks]

a) Calculate the value of a \$20 000 car after 3 years if it depreciates at 6% per year.



b) At the start of 2015, you earned \$350 per week in your job. If you first got a 4% pay rise and later got a 3% pay rise, how much do you now earn each week?

Question 5

[9 marks]

a) If \$3000 is invested at 4% p.a. simple interest for 3 years, what is the interest earned?

b) If \$4500 is invested for two and a half years and it earns \$528.75 interest, what is the interest rate per annum?

$$\frac{528.75}{(P\times T)} = R$$
 $\frac{528.75}{(4500 \times 2.5)} = 0.047 \times 100$ $= 4.7\%$

Bonnie would like to buy a car for \$9 000. She has saved up \$3000 so she will need to borrow the remainder from the bank. Simple interest is charged at 0.6% per month. Bonnie pays off her car after 7 years. How much in total does she end up paying for the car?

end of Test = \$12034 \