EAST PRESTON ISLAMIC COLLEGE
Year 10 Holiday Homework End of Term 1

DUE: Monday, Second week of Term 2, 2019

Have a safe and wonderful time on your Holidays!!!!

From your Year 10 Maths Teachers.

Answer The Following Questions:

A. Cars and Mobile phones

Question 1:

Amount borrowed	1 year	2 years	3 years	4 years
$6,000	$516.15	$267.08	$184.19	$142.84
$8,000	$688.20	$356.10	$245.58	$109.46
$10,000	$860.25	$445.13	$306.98	$238.07
$12,000	$1,032.30	$534.16	$368.38	$285.69

The table shows a finance company's fortnightly loan payments for loans.

Jake borrowed $10, 000. He can only afford $300 per fortnight.

a. Over how many years will he need to take out the loan?

b. Over how many fortnights will he need to pay the loan over?

c. Calculate the total amount Jake will need to pay the finance company.

d. How much more than the borrowed amount will Jake repay the finance company?

Question 2:

$Simple\ Interest = \dfrac{P \times r \times T}{100}$ Where, P is the amount borrowed, r is the % rate and T is the number of years.

Calculate the simple interest on the following loans:

a. $ 6000.00 at 8% for 6 years.

b. $28,000 for 12% for 5 years.

Question 3:

Chris borrows $16000 from Cory's finance company for 4 years at 5% p.a.

a. How much simple interest must he pay?

b. Cory must also pay the company a service fee of $200, as well as interest. Calculate the total amount Cory will have to repay the finance company.

Question 4:

Brett is a member of a motor club and receives 15% discount on this yearly membership. If the membership costs $350, how much will Brett pay for his membership?

Question 5:

The price of fuel is 135 cents per litre. How much 65 litres of fuel cost?

Question 6:

Brittney's mobile phone company charges her 38 cents per thirty seconds or part of. There is also a connection fee of 23 cents. How much will she have to pay for the following calls?

a. 3 minutes   b. 110 minutes

Question 7:

Goods and service tax is 10%. Calculate the GST and the final cost on the following

a. A car priced $27000   b. Electric grinder priced at $520.

Question 8:
Troy's car costs him $26000. He claims 12% depreciation on the cost price each year.
a. How much his car will depreciate each year?

b. Calculate the value of his car in 5 years' time.

Question 9:
Use the formula for diminishing value depreciation, $V = P \times (1 - r)^n$
P = principal,   r = rate of depreciation as decimal,   n= number of years
a. Jacobs's van cost him $32000 and it is depreciating at a rate of 8%. What is the value of the van in 3 years' time?

b. Find V when P= $28000, depreciation rate = 10% and the time period is 5 years.

B. Paying for your phone

1. Tegan's mobile phone company charges her 45 cents per minute, or part there-of. How much she will pay for the calls of the following lengths?

2 minutes	5 minutes	4 minutes, 20 seconds	185 seconds

2. Sam's mobile company charges her a 25 cents connection fee and 40 cents for every 30 seconds, or part there-of, for the calls she makes. How much will she be charged for making calls of the following lengths?

20 seconds	5 minutes, 30 seconds	40 seconds	180 seconds

3. Jemma is trying to decide which mobile phone plan she should choose.

Plan A	Plan B
40 cents per minute, or part there-of. No connection fees.	45 cents per minute, or there-of. Connection fee of 30 cents.

a. How much does a 1-minute call cost on each plan?

b. How much does a 10 minutes call cost on each plan?

c. For what of calls is plan A cheaper?

d. Jemma's calls are generally less than 5 minutes long. Which should she choose? Why

4. a. How much does a 20-minute call cost?

b. How long is a call that costs $21?

c. How many 1- minute calls can be made for $1

> **Special Mobile Phone Deal**
> Pay $500 a month. Get $1200 worth of free standard calls.

Performance Standards/ Marking Criteria

Performance Standards for Year 10 Mathematics

	Mathematical knowledge & skills & their application (MKSA)	Mathematical modeling and problem-s (MMPS)
A	• Extensive knowledge of content and understanding of concepts. • Appropriate selection and use of mathematical ideas and processes efficient in solving complex problems with and without technology. • Highly effective and accurate application of knowledge and skills in different contexts.	• Complete analysis of the tasks using a variety of met investigate, model, and interpret. • Highly effective use of a range of problem-solving str solve complex problems. • Complete understanding of the reasonableness and limitation of the results, and recognition of possible e • Constructive and productive contribution to the work
B	• Considerable knowledge of content and understanding of concepts. • Selection and use of mathematical ideas and processes that produced some correct results tor complex problems with and without technology. • Effective and accurate application of **knowledge** and skills In different contexts.	• Accurate analysis of the tasks using a variety of meth investigate, model, and interpret. • Effective use of problem-solving strategies to solve c problems. • Understanding of the reasonableness and possible li results, or recognition of possible extensions. • Productive contribution to the work of the group.
C	• Adequate knowledge of content and understanding of concepts. • Use of mathematical Ideas and processes that produced correct results for routine problems with and without technology. • Some application of knowledge and skills in different contexts.	• Competent analysis of the tasks using a variety of m investigate, model, and interpret. • Mostly effective use of problem-solving strategies to problems. • Some understanding of the reasonableness and pos of the results. • Adequate contribution to the work of the group.
D	• Some knowledge of aspects of the content and understanding of a limited range of concepts. • Use of mathematical ideas and processes that produced some correct results for routine problems with and without technology. • Application of knowledge and skills In different contexts with partial effectiveness.	• Some analysis of aspects of the tasks using a variet investigate, model, and interpret. • Occasional use of problem-solving strategies to solv • Some awareness of the reasonableness and possib the results. • Superficial contribution to the work of the group.
E	• Limited knowledge of aspects of the content and some awareness of one or more concepts. • Use of mathematical Ideas and processes that produced limited correct results for routine problems with and without technology. • Application of knowledge and skills in a different context with limited effectiveness.	• Attempted analysis of one or more aspects of the ta variety of methods to Investigate, model, and interp • limited use of problem-solving strategies to solve pr • Limited awareness of the reasonableness and poss the results.