

EAST PRESTON ISLAMIC COLLEGE

Year 10 Holiday Homework End of Term 2

DUE: Monday, First week of Term 3, 2018

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

From your Year 10 Maths Teacher.

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.

- Over how many years will he need to take out the loan?
- Over how many fortnights will he need to pay the loan over?
- Calculate the total amount Jake will need to pay the finance company.
- How much more than the borrowed amount will Jake repay the finance company?

Question 2:

Simple Interest = $\frac{P \times r \times T}{100}$ 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
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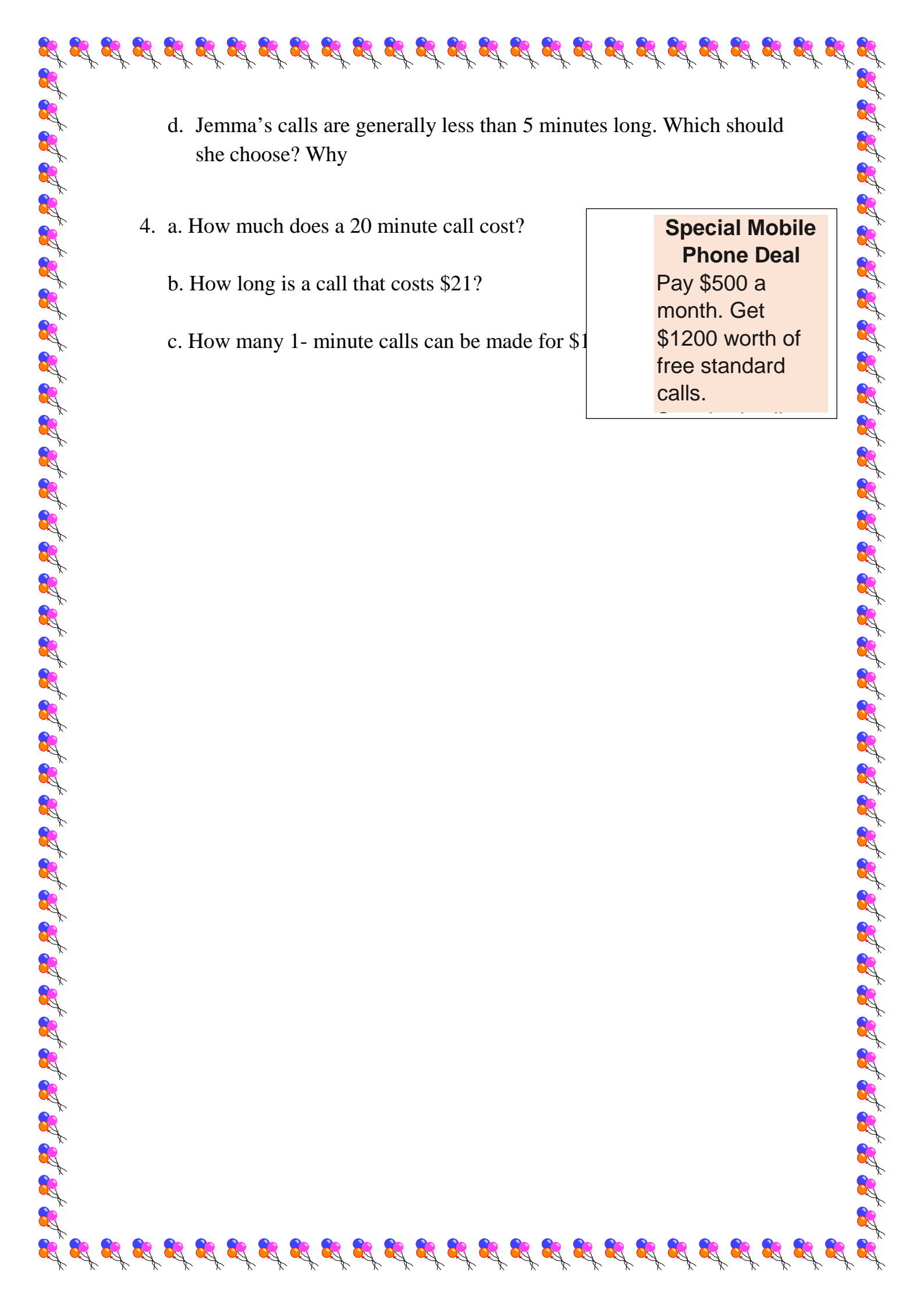
2. Sam's mobile company charges her a 25 cents connection fee and 40 cents for every 30 seconds, or part there-of, for the calls she makes. How much will she be charged for making calls of the following lengths?

20 seconds	5 minutes, 30 seconds	40 seconds	180 seconds
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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 fee.	45 cents per minute, or there-of. Connection fee of 30 cents.

- How much does a 1-minute call cost on each plan?
- How much does a 10 minutes call cost on each plan?
- 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

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month. Get
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