

Year 11 2AB

2009 Semester One Revision

Instructions

- *Complete all questions on this question paper*
- *Give all answers to two decimal places unless otherwise stated*

Name: _____

Teachers Name: _____

Question1

Evaluate the Following

(a) $4 + 9 \times 3 =$	(f) $(-4)^3 =$
(b) $-14 \div 2 \times 4 =$	(g) $-2^2 =$
(c) $2 + 3^3 \times 3 =$	(h) 15% of \$230 =
(d) $6(5+7) =$	(i) 25% of \$450 =
(e) $4^3 - 2^3 =$	(g) 20% of \$75 =

Question 2

Round the following

- (a) 3.67851 to (3dp)
- (b) 46.8977 to (3dp)
- (c) 99.9999 to (2dp)

Question 3

Evaluate the following

- (a) \$200 **Decrease** by 45% =
- (b) \$82 **Decrease** by 15% =

- (c) \$90 **Increased** by 14%
- (d) \$74 **Increased** by 15%
- (e) 1% **of an amount is** \$20 find the amount.
- (f) 15% **of an amount is** \$30 find the amount.

Question 4

Which is the greater percentage Profit

Purchased for \$40 sold for \$47.20

Or

Purchased for \$80 sold for \$92

Question 5

Which is the greater percentage Loss

A car bought for \$30 000 and sold for \$14 000

Or

A car bought for \$45 000 and sold for \$20 000

Question 6

Find the Percentage [2marks]

John got 30 correct questions out of 70 questions. What was his percentage?

Question 7

A car travels 247km on 26L of fuel.

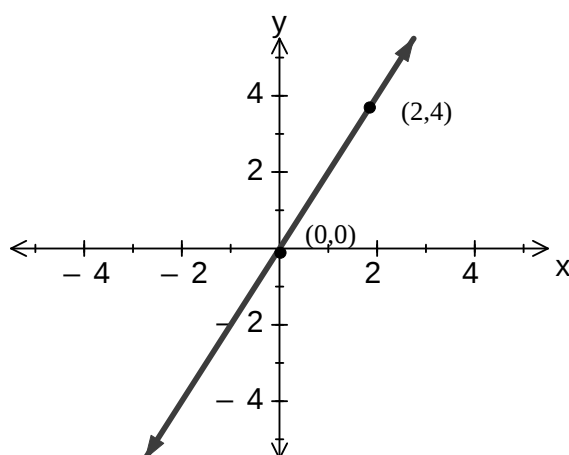
How far will the car travel on 16L under the same conditions?

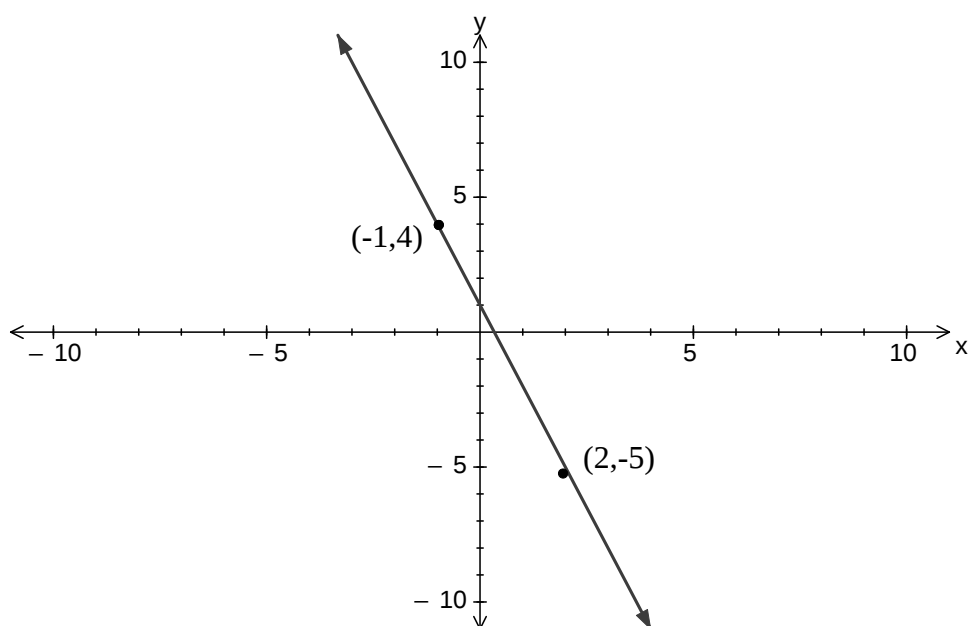
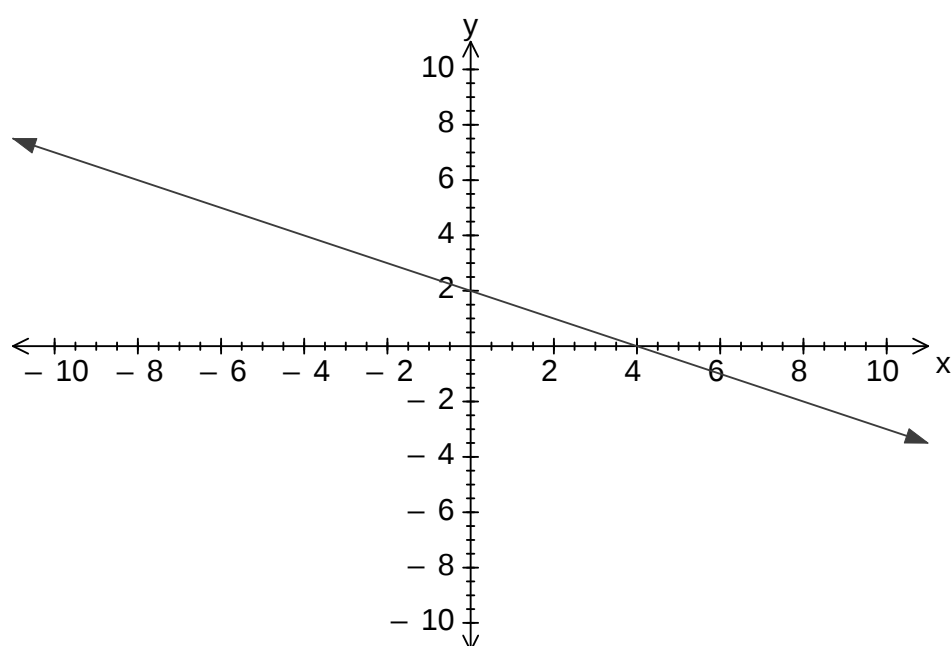
Question 8**Work out the best buy****\$15.20 for 3kg of flour**

Or

\$17.00 for 4kg of flour**Question 9****If 4.6kg of apples cost \$20.**(a) Then how much does **3kg** cost?(b) Then how much does **10kg** cost?**Question 10****Find the Gradients of the following lines.**

(a)



(b)**Question 11****Find the Gradient of the following line.**

Question 11**Find the rule of the following pattern****(a)**

X	1	2	3	4	5
Y	8	15	22	29	36

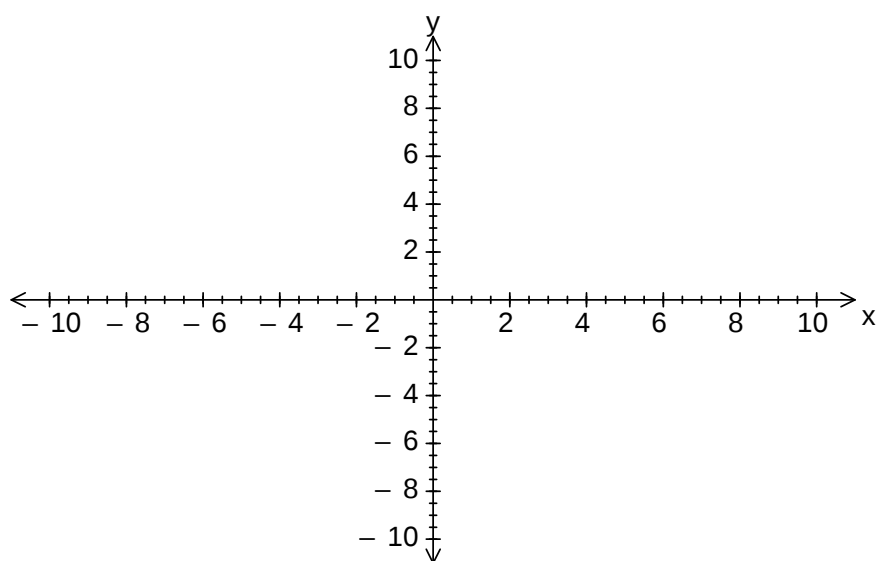
(b)

X	0	1	2	3	4
Y	15	10	5	0	-5

Question 11 Graph the following equation

$$y = 3x - 2$$

x	-2	-1	0	1	2	3
y						



Question 12

Jason volunteered to do the lunch run for himself and 7 of his colleagues. He spent **\$39.00** on hamburgers and hot dogs. A hot dog costs **\$3.00** and a hamburger costs **\$6.00**.

- (a) using ***d*** for hot dogs and ***b*** ham burgers, write two equations for the above information.
- (b) Assuming each person eats only one item, how many of each type of food item did Jason buy?

Non Calculator Section**Name:** _____

1. Fill in the following table.

Fraction	Decimal	Percentage
$\frac{1}{10}$		
	0.3	
		50 %
	0.75	
		80 %
$\frac{19}{20}$		

2. Find:
- a) The multiples of 8 between 0 and 60 inclusive.
- b) The factors of 36.
- c) The multiples of 5 between 0 and 60 inclusive.

d) The factors of 60.

e) The LCM of 8 and 5.

f) The HCF of 60 and 36.

3. Round the following to the nearest hundredth.

a) 42.947

c) 561.342

b) 1512.4

d) 0.94

4. Simplify the following ratios.

a) 5:75

c) 12:50

b) 132:165

d) 0.2:1.2

5. Evaluate the following.

a) $12 - 4 \div 2 \times (7 + 2)$

d) $-7 \times 4 \times -1$

c) $8 \times -3 \div (-6)$

e) $8^2 - 5^2 + 4 \times (7 - 3) \div 2$

e) $9 + 5 - (13^2 - 100)$

f) $12 + (-4) - (-7) + 6$

6. Solve the following problems.

a) Travelling at 140km/h, how far would be travelled in 3 hours?

b) If I travelled 150km at a speed of 30km/h, how long would it take?

c) If I travelled for 7 hours and covered a distance of 420km, what speed was I travelling at?

Calculator Permitted

Question 1

The price of Iron Ore pellets increases from \$51.60 per tonne to \$112.00 per tonne, over a period of 16 years. Express the increase as a percentage increase.

Question 2

Find:

a) 40% of 36

c) 121% of 76

b) 72% of 960

d) 3% of 80

Question 3

Herbert has a part-time job and has saved \$1250 towards buying a used car priced at \$5000. His father has promised to pay 60% of the price. Decide if Herbert has saved enough or how much more he has to save.

Question 4

a) Increase \$3500 by 12%, giving your answer to the nearest dollar.

b) Decrease \$472 by 18%, giving your answer to the nearest dollar.

c) A 15% increase in monthly sales saw the number of new cars sold by a particular manufacturer rise to 4945 in one month. How many cars did the manufacturer sell in the previous year?

- d) In a sale all normal prices are reduced by 20%. Find the normal price of an item with a sale price of \$340.00.

Question 5

Fill in the following table

Profit or Loss	What it Cost	What it was sold for	Profit or Loss as a percentage of cost.
Loss	\$400		7.5%
	\$950	\$1396.50	
Profit	\$70		12%
	\$1500	\$1455	
Loss		\$306	15%
Profit		\$5.25	75%

Question 6

A real estate agency charges commission on the sale of houses based on the following steps:

4% of the first \$200 000

3% of the next \$150 000

2% of the next \$150 000

1.5% thereafter.

How much will the real estate agency receive in commission is houses costing the following amounts are sold?

a) \$375 000

b) \$790 000

Question 7

For the following circle the best buys, show working to support your answer.

a) 100g of milo for \$2.50

OR

275g of milo for \$7.42

b) 315g of biscuits for \$2.89

OR

500g of biscuits for \$4.45

- c) 1.25L of soft drink for \$3.72 OR 2.25L of soft drink for \$6.75

Question 8

Solve the following.

- a) A mother seal is fed 5 fish for every 2 fish for its baby. Alice fed the mother seal 15 fish. How many fish did the baby get?

- b) Zara uses 3 tomatoes for every half a litre of sauce. How much sauce can she make from 15 tomatoes?

- c) There are 5 toffees to every 2 chocolates in a box of 28 sweets. How many chocolates are there in the box?