Carlingford High School

Mathematics

Modified

Year 9 Term 1 Examination

5.1 Course

2018

Name: _____

Teacher: Ms Strilakos

Time allowed: 50 minutes

- Board approved calculators may be used.
- Show all necessary working.
- Marks may be deducted for careless or untidy work.
- Complete the examination in blue or black pen.

TOPIC	Earning Money	Linear Relationships	TOTAL
	/34	/31	/65

Question 1

Jeyda works at Kmart for 6 hours per week and earns $10.50 per hour.

How much money does she earn in a week?

[1]

Question 2

A tailor earns $42.50 per hour and works for 37 hours every week. How much does he earn in one week?

[1]

For the following questions, assume that

1 year = 12 months = 52weeks

Question 3

If a person earns $783 per week, how much do they earn in one month?

[2]

Question 4

Jed's normal rate of pay is $12.70 per hour.

(i) If Jed works 16 hours at **the normal rate** how much does he earn altogether?

[1]

When he works overtime he is paid a rate of time-and-a-half for this overtime.

(iii) If Jed works 4 hours overtime, how much does he earn for this 4 hours of overtime work?

[2]

Question 5

Monse earns $432 for working 24 hours per week at the normal rate.

(i) How much does she earn per hour?

[1]

When she works overtime on a Saturday she is paid at a rate of time-and-a-half.

(ii) What is the time-and-a-half rate of pay for each hour? {use your answer from part (i) to help}

[1]

(iii) If she works 5 hours overtime on a Saturday how much does she earn for this overtime?

[1]

(iv) If during one week, she works her usual 24 hours at the normal rate, and then she works an extra 5 hours on the Saturday, earning the time-and-a-half rate, how much does she earn altogether in that week?

Total Pay for Normal Hours =

Total Pay for Overtime Hours =

∴ Total Pay Altogether for this week =

[1]

Question 6

Aidan works at a factory making earphones.

He earns $1.50 for each set of earphones he attaches the foam pads to.

(i) If Aidan completes 60 sets of earphones in one day, how much does he earn for that day?

[1]

Aidan will receive a $50 bonus if he can complete at least 350 sets of earphones across a 5-day week.

(ii) How many would he need to complete each day to earn this bonus?

[1]

(iii) In a week when Aidan completes 400 sets of earphones, how much does he earn altogether?

[2]

Question 7

April works in a shoe shop where she earns $420 per week, plus 10% commission on all her sales.

In a week when she sells shoes to the total value of $3700, how much does she earn altogether?

[3]

Question 8

Matthew earns $3240 per month, and is paid a bonus of 8% of his salary for the year.

(i) How much does he earn in a year before his bonus?

(ii) How much is Matthew's bonus?

(iii) How much does he earn altogether for the year?

[1+2+1]

Question 9

Calculate the pay earned by piecework if Emily folds 320 leaflets at 20 cents per leaflet. (Give your answer in dollars)

[2]

Question 10

Annual leave loading is an extra 17.5% of 4 weeks pay.

If Sam earns $24 960 per year

(i) How much does he earn per week?

(Assume exactly 52 weeks in a year)

[1]

(ii) What is his pay for 4 weeks?

[1]

(iii) What is his leave loading for 4 weeks?

[1]

(iv) What is his total holiday pay for 4 weeks?

[1]

Use the tax tables provided on the separate sheet to help work out each of the following tax questions.

Question 11

Andrew earns $53 490 per year. He also earns $230 interest on his bank account investments.

He has work related expenses of $420 each year.

(i) What is Andrew's total Income?

[1]

(ii) How much are his deductions?

[1]

(iii) What is Andrew's taxable Income?

[1]

(iv) Calculate Andrew's income tax payable on his taxable income.

[3]

Question 12

Complete the table of values for each equation given:

(i) $y = x + 3$

x	0	1	2	3	4
y					

[2]

(ii) $y = x \div 4$

x	20	16	12	8	4
y					

[2]

(iii) $y = 4x - 2$

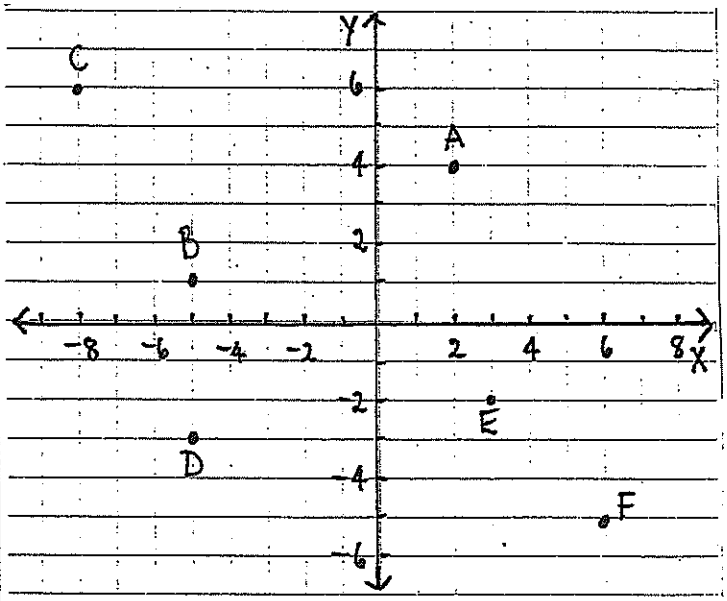
x	5	3	2	0	-2
y					

[3]

Question 13

Write the coordinates of each point shown on the number plane below.

[3]



A(,) B(,) C(,)

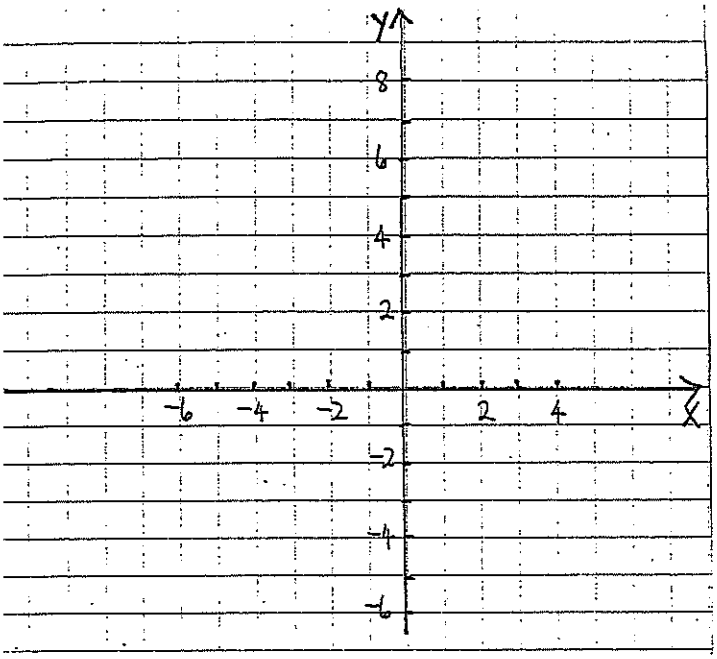
D(,) E(,) F(,)

Question 14

Graph the following table of values on the number plane given.

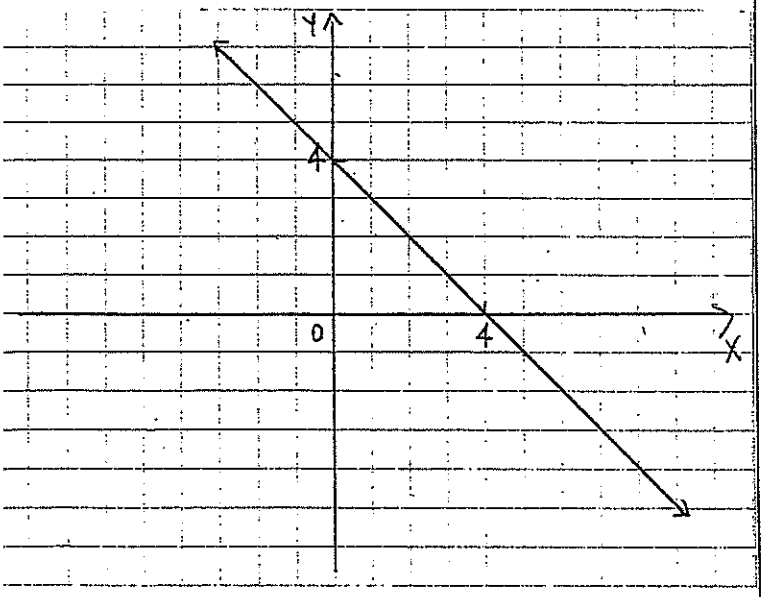
x	-5	-3	-2	0	1	2
y	-6	-2	0	4	6	8

[3]



Question 15

The graph below shows the line $y = 4 - x$.



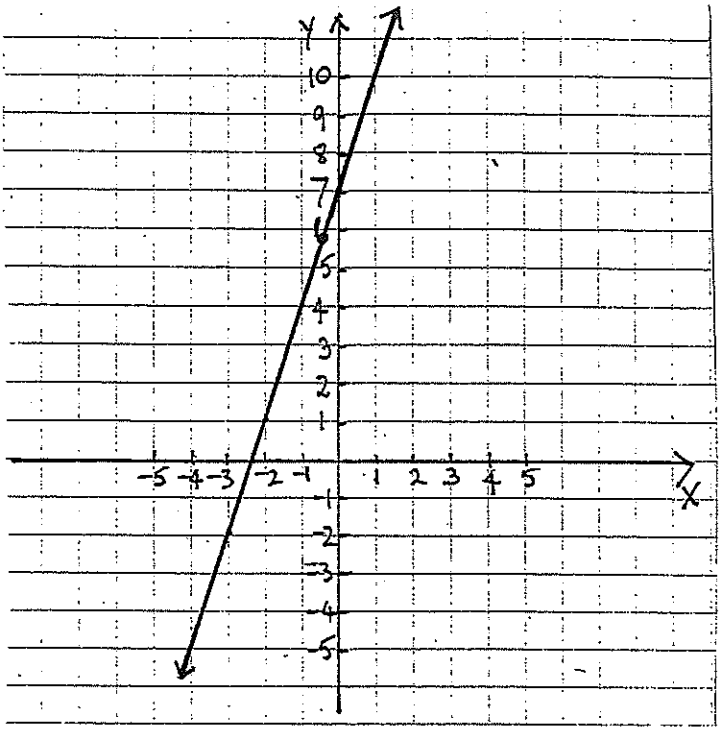
i) Now on the same number plane, sketch the line $x = 3$. [1]

ii) What are the coordinates of the point where these two lines cross?

[1]

Question 16

The graph below shows the line with equation $y = 3x + 7$.



a) i) Now on the same number plane, sketch the line $y = 10$. [1]

ii) What are the coordinates of the point where these two lines cross?

[1]

Also, on the same number plane above,

b) i) Sketch the line $y = -2$ [1]

ii) What are the coordinates of the point where this line crosses the line $y = 3x + 7$?

[1]

iii) What are the coordinates of the point where the line $y = -2$ crosses the line $x = -1$?

[1]

Question 17

Which of the following points lie on the line $y = 4x - 3$?

Show your test in each case.

i) (2, 7)

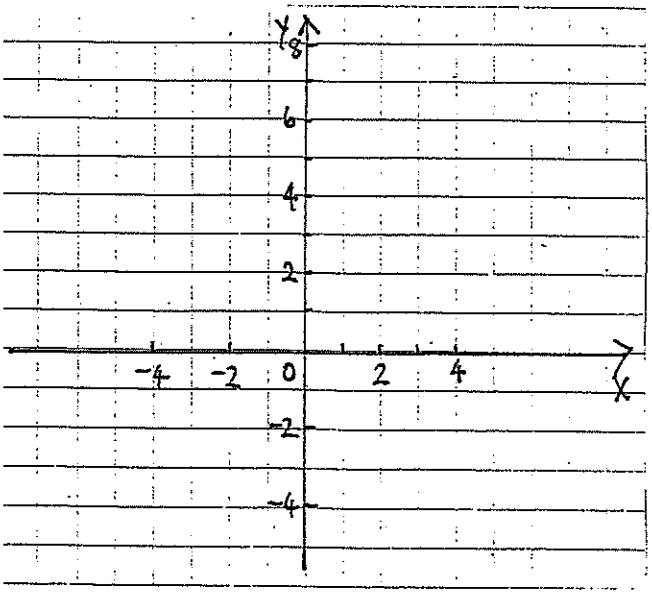
ii) (-2, -11)

[2+2]

Question 18

i) Graph the line $y = 4 - 2x$ on the number plane below using the table of values given.

x	-2	1	3
y	8	2	-2



[2]

ii) What is the value of the x-intercept?

[1]

iii) What is the value of the y-intercept?

[1]

Question 19

Write down the equation of the line that is:

i) Horizontal with a y-intercept of 4

ii) Vertical with an x-intercept of -3

iii) Horizontal and passing through (2, -4)

iv) Vertical and passing through (6, 5)

[4]

END OF TEST

Taxable income (rounded down to the nearest dollar)	Tax on this income
$0 – $18 200	Nil
$18 201– $37 000	19c for each $1 over $18 200
$37 001 – $80 000	$3572 plus 32.5c for each $1 over $37 000
$80 001 – $180 000	$17 547 plus 37c for each $1 over $80 000
$180 001 and over	$54 547 plus 45c for every $1 over $180 000

Taxable income = Gross income – total allowable deductions

Weekly Earnings ($)	PAYG tax withheld ($)
384 - 386	87
387 - 389	88
390 - 392	89
393 - 394	90

Fortnightly earnings ($)	PAYG tax withheld ($)
1240 - 1244	336
1246 - 1250	338
1252 - 1256	340
1258 - 1262	342