Name :

Teacher :

Intermediate 2 Official Homework 3
Created by Mr Lafferty
St. Ninian's High School

This homework covers

Straight Line Past Paper Questions

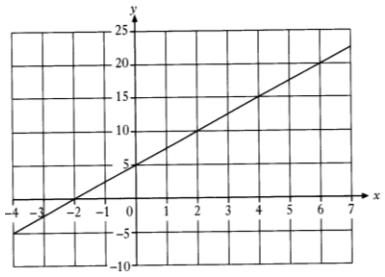
Intermediate 2

38

Teacher Comments :

Pupil's Comment :

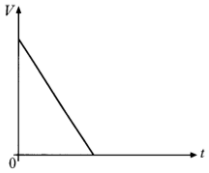
Q1. Find the equation of the straight line shown in the diagram below.



Working :

3 marks

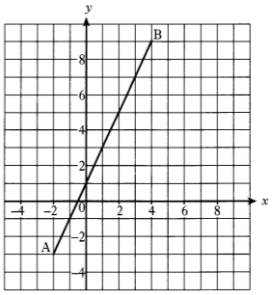
Q2. A bath contains 150 litres of water.
Water is drianed from the bath at a steady rate of 30 litres per minute. The graph of the volume, **V** litres, of water in the bath against the time t minutes, is shown below.
Write down an equation connecting **V** and t.



Working :

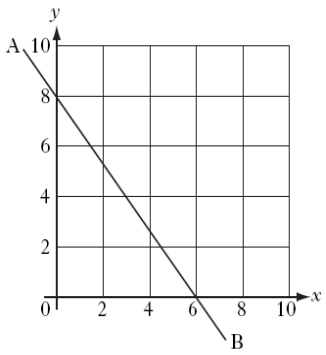
3 marks

Q3. Find the equation of the straight line AB.



3 marks

Q4. Find the equation of the straight line AB shown in the diagram.



Working :

3 marks

Q5. A straight line has equation $3y = 12 - 4x$.
Find the coordinates of the point where it crosses the x-axis.

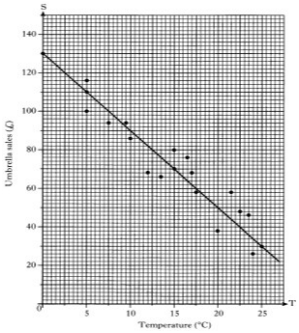
Working :

3 marks

Q6. The temperature, in degrees Celsius, at mid-day in a seaside town and the sales, in pounds, of umbrellas are shown in the scattergraph below
A line of best fit has been drawn.

(a) Find the equation of the line of best fit.

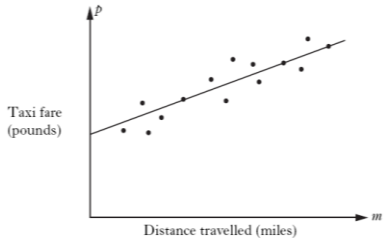
(b) use your answer to part (a) to predict the sales for a day when the temperature is 30 degrees Celsius.



Working :

5 marks

Q7. The scattergraph shows the taxi fare, p pounds, plotted against the distance travelled, m miles. A line of best fit has been drawn.
The equation of the line of best fit is $p = 2 + 1.5m$.
Use this equation to predict the taxi fare for a journey of 6 miles.



Working :

2 marks

Q8. A straight line is represented by the equation $2y + x = 6$.

(a) Find the gradient of this line.

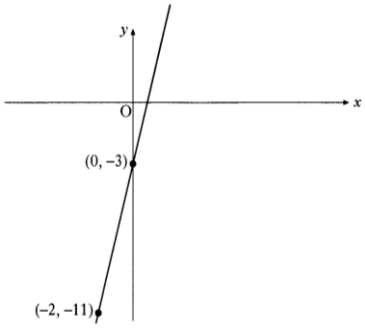
Working :

(b) This line crosses the y - axis at (0,c).
Find the value of c.

Working :

4 marks

Q9. Find the equation of the straight line passing through the points (0,-3) and (-2,-11).



Working :

3 marks

Q10. A straight line is represented by the equation $y = ax + b$.

Sketch a possible straight line graph to illustrate this equation when $a = 0$ and $b > 0$.

Working :

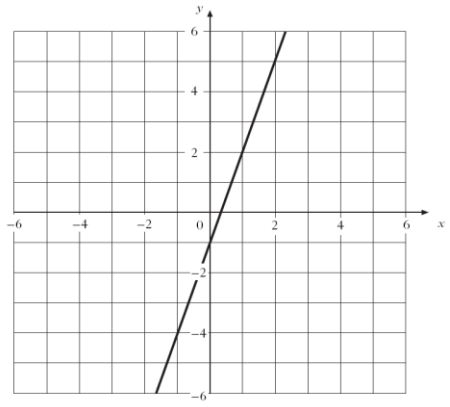
3 marks

Q11. A straight line has equation $y = 4x + 5$.
State the gradient of this line.

Working :

1 marks

Q12. Find the equation of the straight line shown in the diagram.



Working :

3 marks

Q13. A straight line is represented by the equation $x + y = 5$.
Find the gradient of this line.

Working :

2 marks

Total marks	38