

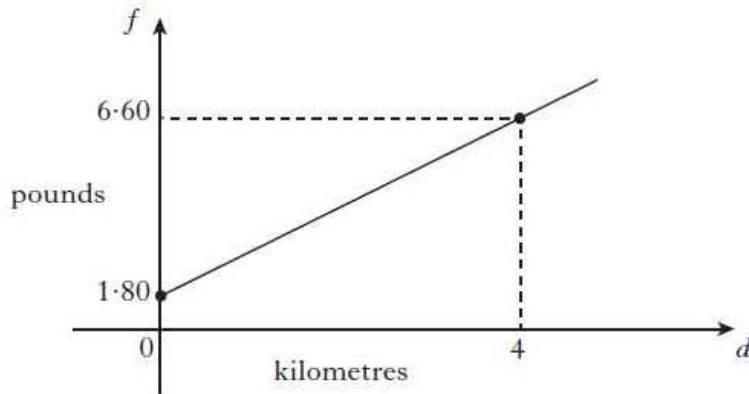
Credit Revision - Straight Line

2012 Paper 2

10. A taxi fare consists of a call-out charge of £1.80 **plus** a fixed cost per kilometre.

A journey of 4 kilometres costs £6.60.

The straight line graph shows the fare, f pounds, for a journey of d kilometres.



- (a) Find the equation of the straight line. 3KU
- (b) Calculate the fare for a journey of 7 kilometres. 2RE

2011 Paper 1

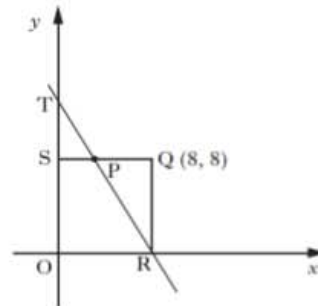
8. A square, OSQR, is shown below.
Q is the point (8, 8).

The straight line TR cuts the y -axis at T (0, 12) and the x -axis at R.

- (a) Find the equation of the line TR. 3KU

The line TR also cuts SQ at P.

- (b) Find the coordinates of P. 4RE



2010 Paper 1

7. A straight line has equation $y = mx + c$, where m and c are constants.

- (a) The point (2, 7) lies on this line. 1KU
Write down an equation in m and c to illustrate this information.

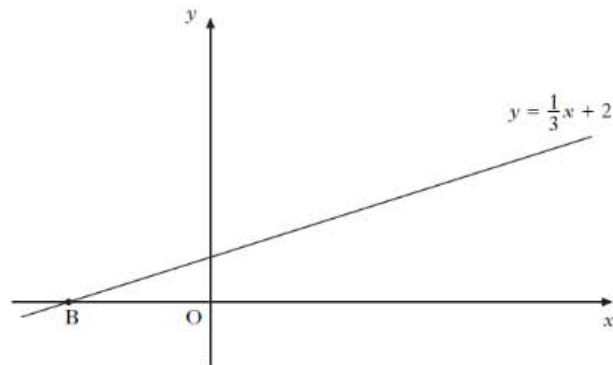
- (b) A second point (4, 17) also lies on this line. 1KU
Write down another equation in m and c to illustrate this information.

- (c) Hence calculate the values of m and c . 3RE

- (d) Write down the gradient of this line. 1RE

2010 Paper 1

9. Part of the graph of the straight line with equation $y = \frac{1}{3}x + 2$, is shown below.



(a) Find the coordinates of the point B.

2KU

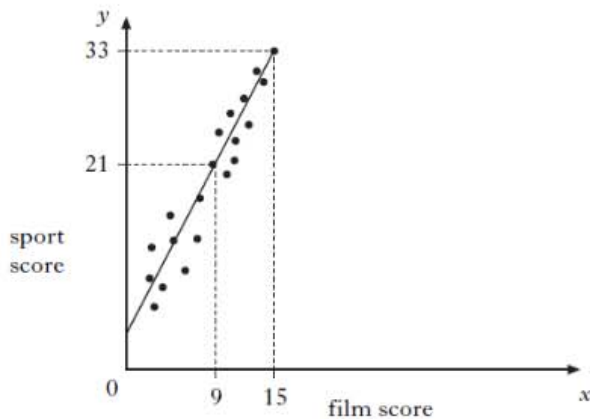
(b) For what values of x is $y < 0$?

1RE

2009 Paper 2

6. Teams in a quiz answer questions on film and sport.

This scatter graph shows the scores of some of the teams.



A line of best fit is drawn as shown above.

(a) Find the equation of this straight line.

4KU

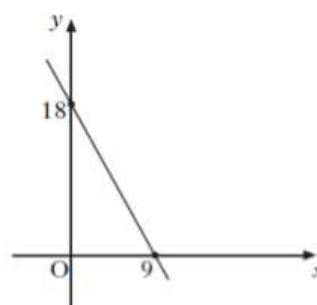
(b) Use this equation to estimate the sport score for a team with a film score of 20.

2RE

2008 Paper 1

4. A straight line cuts the x -axis at the point $(9, 0)$ and the y -axis at the point $(0, 18)$ as shown.

Find the equation of this line.

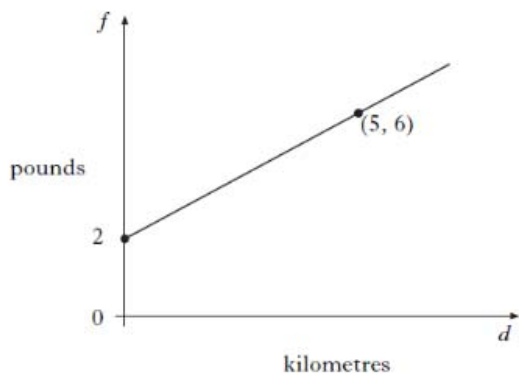


3KU

2007 Paper 1

6. A taxi fare consists of a £2 “call-out” charge **plus** a fixed amount per kilometre.

The graph shows the fare, f pounds for a journey of d kilometres.



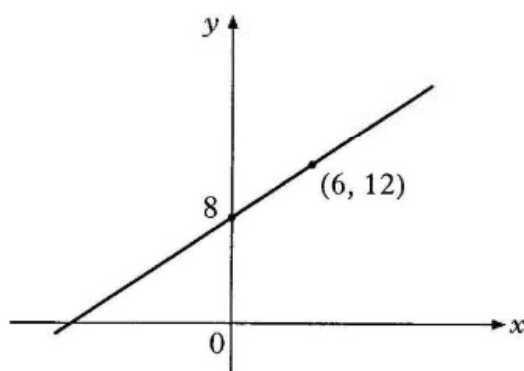
The taxi fare for a 5 kilometre journey is £6.

4KU

Find the equation of the straight line in terms of d and f .

2006 Paper 1

4.



Find the equation of the given straight line.

3KU

2005 Paper 1

5. In an experiment involving two variables, the following values for x and y were recorded.

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

The results were plotted, and a straight line was drawn through the points.

Find the gradient of the line **and** write down its equation.

3KU

2004 Paper 1

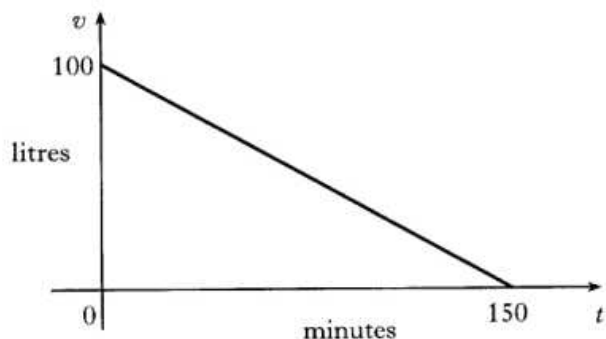
10. Two variables x and y are connected by the relationship $y = ax + b$.

Sketch a possible graph of y against x to illustrate this relationship when a and b are each less than zero.

3RE

2004 Paper 2

2. A tank which holds 100 litres of water has a leak.
After 150 minutes, there is no water left in the tank.



The above graph represents the volume of water (v litres) against time (t minutes).

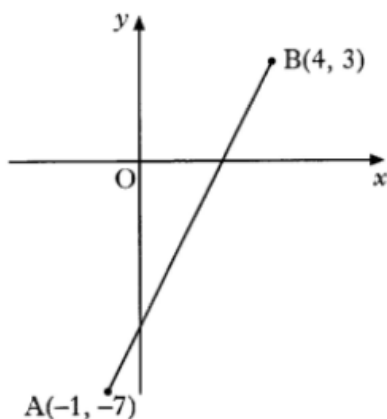
- (a) Find the equation of the line in terms of v and t .
(b) How many minutes does it take for the container to lose 30 litres of water?

3KU

3RE

2003 Paper 1

6. In the diagram below, A is the point $(-1, -7)$ and B is the point $(4, 3)$.



- (a) Find the gradient of the line AB.
(b) AB cuts the y -axis at the point $(0, -5)$.
Write down the equation of the line AB.
(c) The point $(3k, k)$ lies on AB.
Find the value of k .

1KU

1KU

2RE