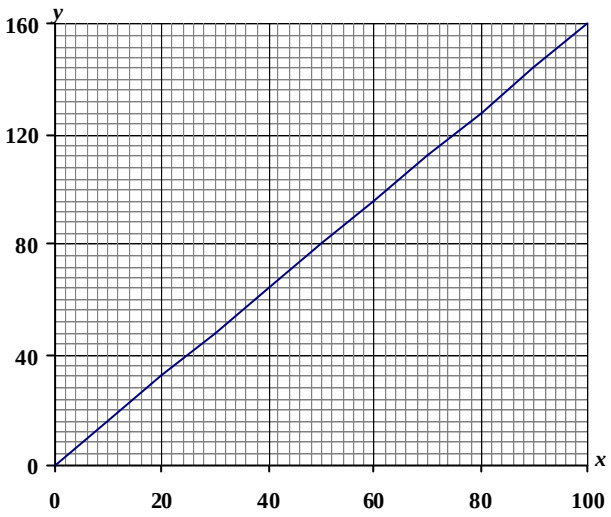
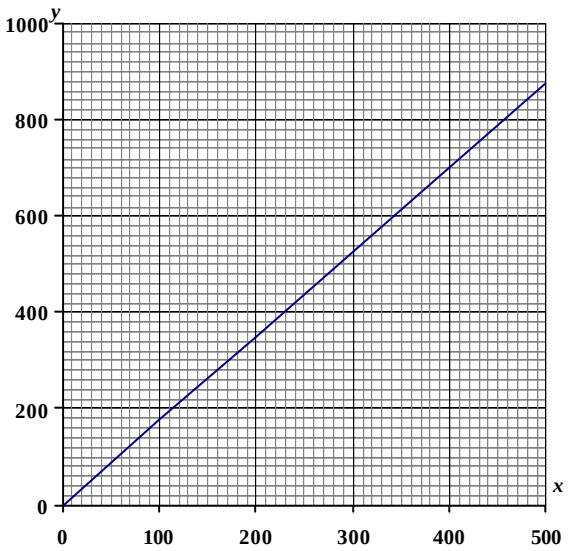


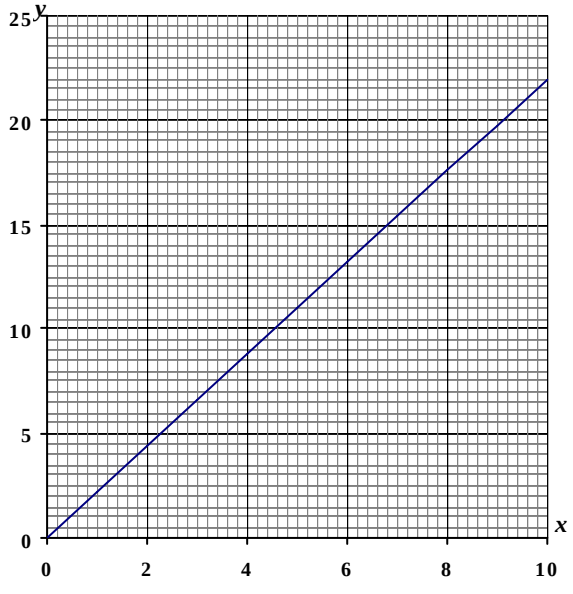
$y = 1.6x$

5 miles is equal to 8 km



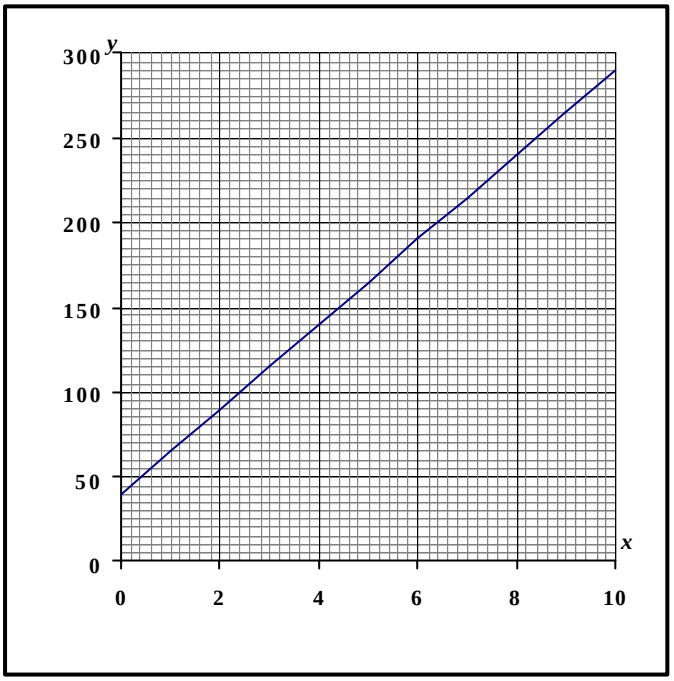
$y = 1.75x$

The exchange rate is £1 = $1.75



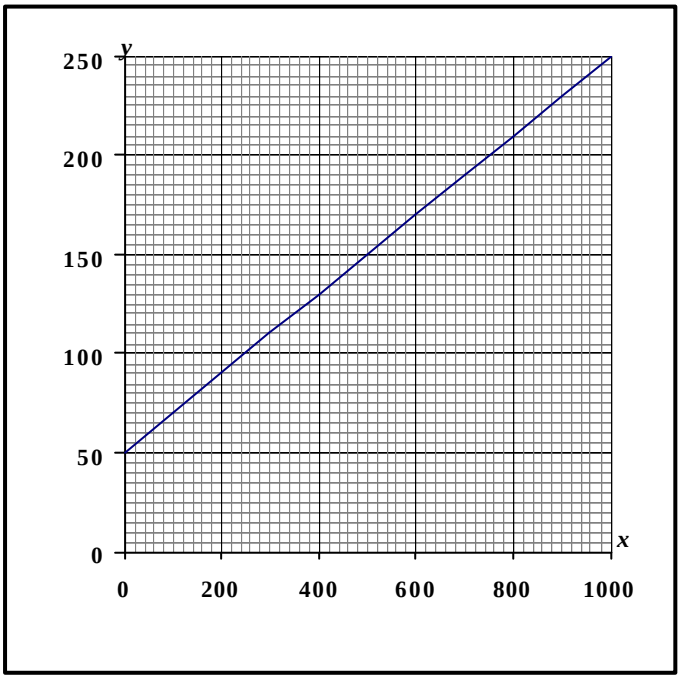
$y = 2.2x$

1 kilogram = 2.2 pounds



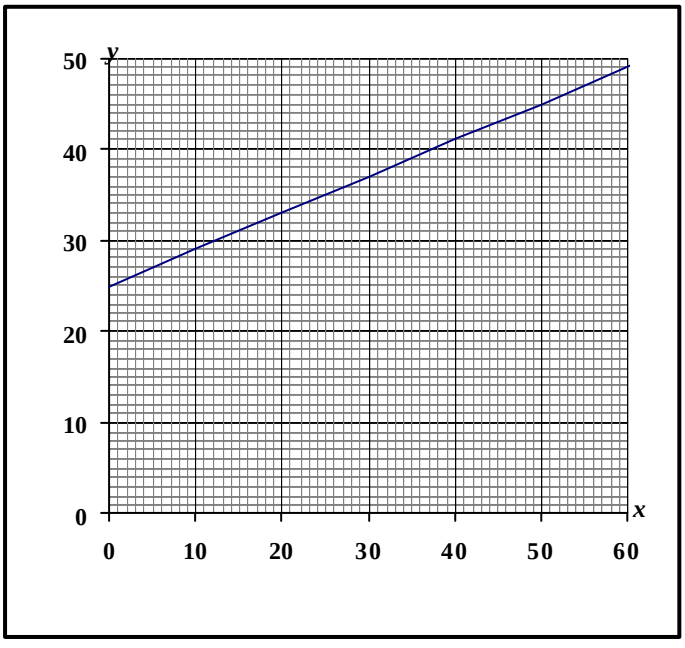
$y = 25x + 40$

The plumber charges £40 for a call-out plus £25 per hour.



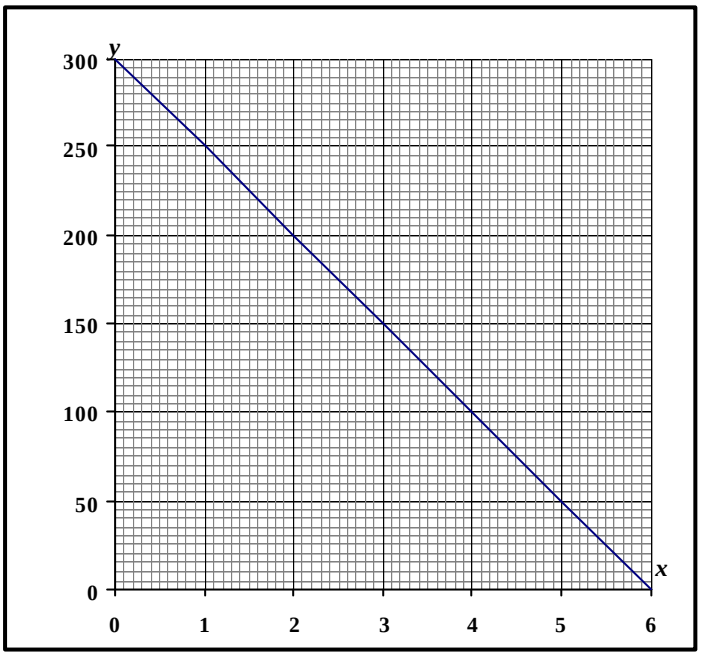
$y = 0.2x + 50$

The printing firm charges £50 for the design plus 20p per poster.



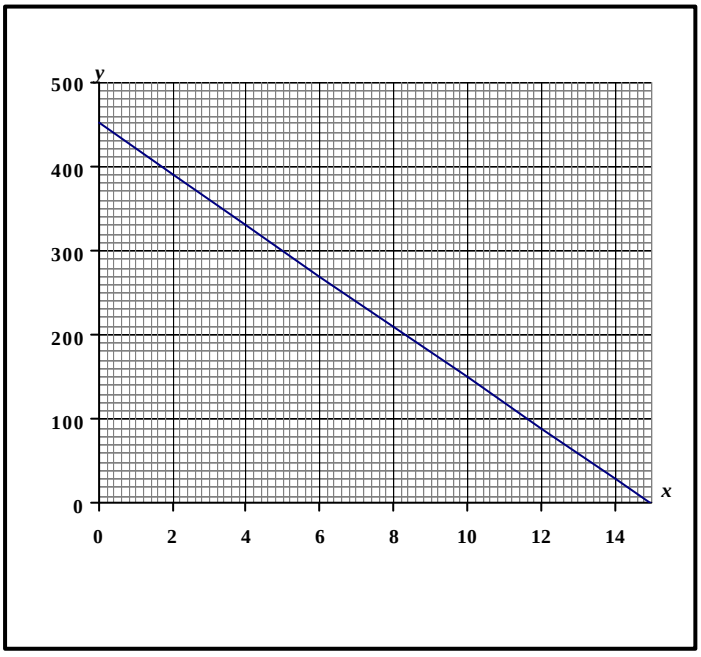
$y = 0.4x + 25$

A delivery firm charges £25 plus 40p per mile.



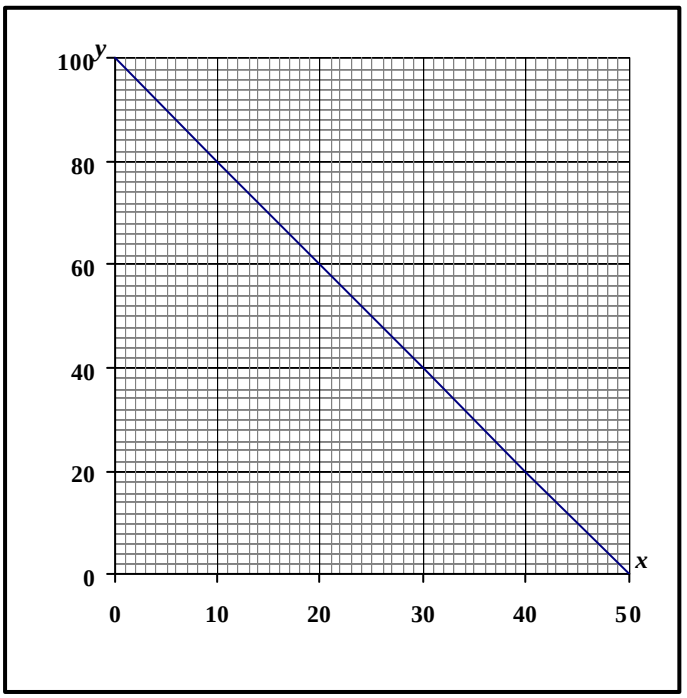
$y = 300 - 50x$

The journey is 300 miles long.
We travel at 50 mph.



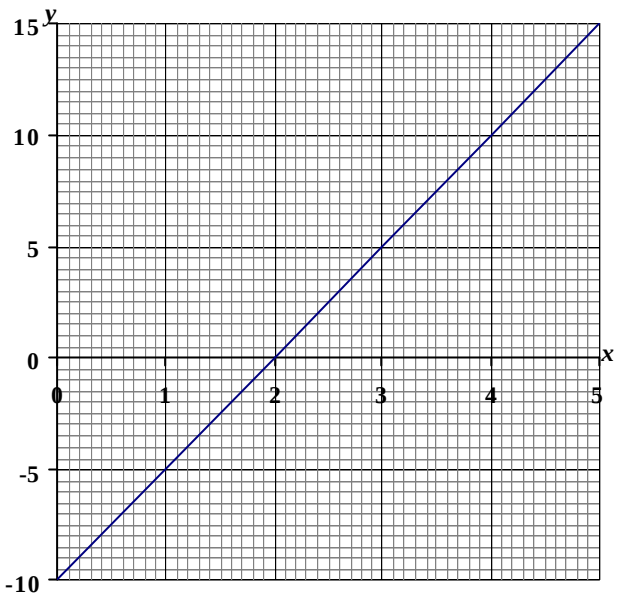
$y = 450 - 30x$

When full, the tank held 450 litres.
We use 30 litres per day.



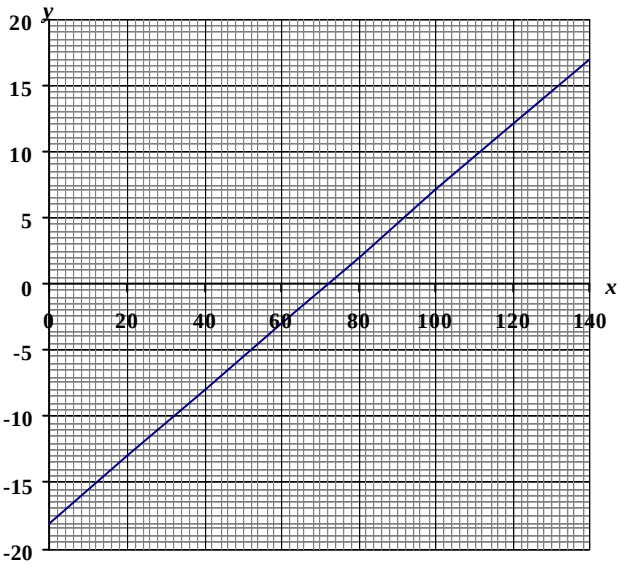
$y = 100 - 2x$

The water boiled at 100°C.
It cools at a rate
of 2°C per minute.



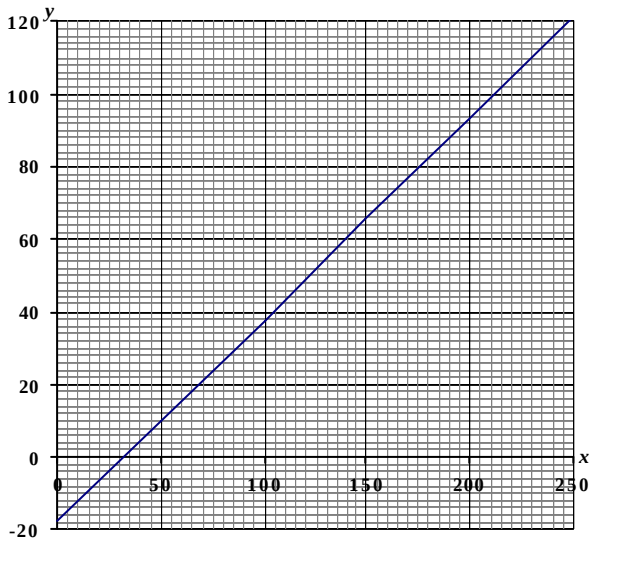
$$y = 5x - 10$$

**It costs £10 to make the cheese.
We sell it at £5 per kilogram.
If we sell more than 2 kilograms we make a profit.**



$$y = 0.25x - 18$$

**When we take it from the freezer its temperature is – 18°C.
Its temperature rises at a rate of ¼°C per minute.**



$$y = \frac{5}{9}(x - 32)$$

To convert from Fahrenheit to Centigrade, subtract 32, then multiply by 5 and divide by 9.

Teacher Notes

Units Intermediate Level, ***Using algebra, functions and graphs***
Advanced Level, ***Working with algebraic and graphical techniques***

Skills used in this activity:

- Recognise and interpret the main features of linear graphs.
- Find the function that repesents a linear graph.

Notes

The previous pages give 12 sets of cards, where each set contains a linear graph, a brief description of a real situation and a linear function. You could use all three cards in each set or just two of them. Students can work individually or in pairs or groups - you will need to copy, laminate and cut out the cards on pages 1 to 4 for each student or group of students. Ask students to sort the cards into groups of three.