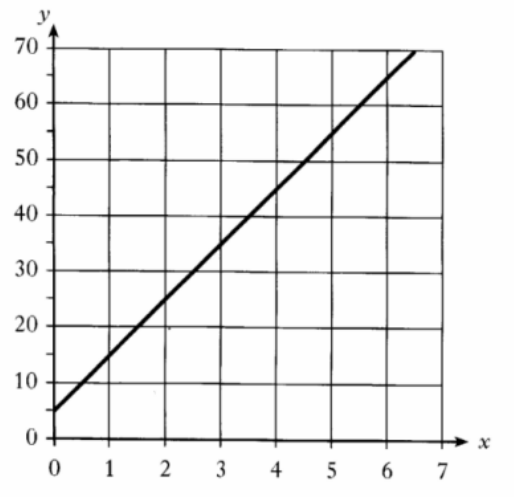
National 5 Maths Practice Paper A

Paper 1 You may NOT use a calculator

1. Evaluate $3\frac{2}{5} - 1\frac{3}{4}$ 2

2. Factorise $x^2 + 2x - 15.$ 2

3.

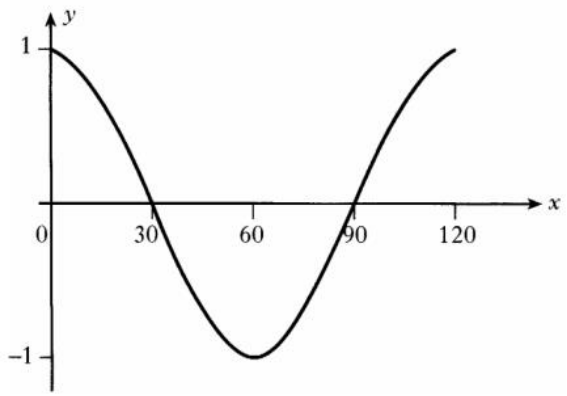


Find the equation of this straight line in the form $y = mx + c$ 3

5. $P = R^3b - 5$

Change the subject of the formula to R. 3

7.



Part of the graph of $y = \cos bx°$ is shown in the diagram.

State the value of b. 1

8. Find the point of intersection of the straight lines with equations

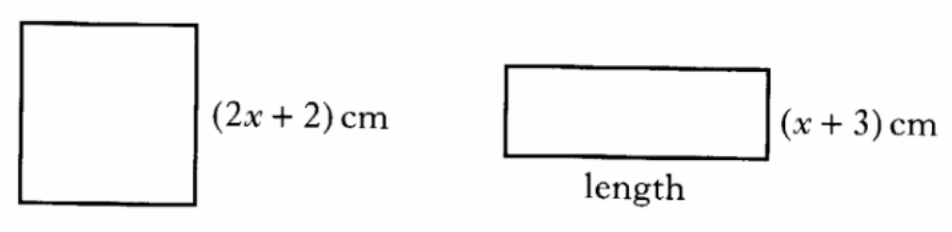
$2x + y = 5$ and $x - 3y = 6.$ 4

10. A straight line has the equation $3x - y = 9$.

A second line is parallel to this and passes throught the point $(5, -3)$.

Write down the equation of the second line. 3

12. The square and rectangle shown below have the same perimeter.



Show that the length of the rectangle is $(3x + 1)$ centimetres. 2

13. (b) Express $\sqrt{18} - \sqrt{2} + \sqrt{72}$ as a surd in its simplest form. 3