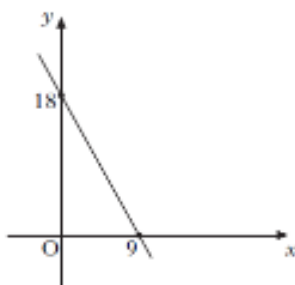


Practice Exam 2

1. A local council recycles 42 000 tonnes of waste a year.
The council aims to increase the amount of waste recycled by 8% each year.
How much waste does it expect to recycle in 3 years time?
Give your answer to **three significant figures**.

4 marks

2. 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.

3 marks

3. The heights, in centimetres, of seven netball players are given below.

173 176 168 166 170 180 171

For this sample, calculate:

(a) the mean;

1 mark

(b) the standard deviation.

3 marks

Show clearly all your working.

4. Jamie works as a potter for a company which makes china ornaments.
He earns a basic salary of £218 per week plus 80 pence for every ornament he makes.
Jamie saves $\frac{2}{5}$ of his gross pay every week.
One week he makes 40 ornaments.
Calculate how much Jamie saves that week.

3 marks

5. The table shown below is used to calculate loan repayments.

		60 months	48 months	24 months
		Monthly repayment (£)	Monthly repayment (£)	Monthly repayment (£)
With payment protection	£20 000	463.85	551.43	994.23
	£15 000	347.89	413.57	745.67
	£7500	173.94	206.79	372.84
Without payment protection	£20 000	384.65	467.72	884.47
	£15 000	288.49	350.79	663.35
	£7500	144.24	175.40	331.68

Samir wishes to borrow £15 000.

How much will the loan cost him if he repays it over 48 months, with payment protection?

3 marks

6. Anna earns £42 000 per year. She has tax allowances of £5425. The rates of tax applicable for the year are given in the table below.

Taxable income (£)	Rate
On the first £34 600	20%
On any income over £34 600	40%

How much is Anna's **monthly** tax bill?

5 marks

7. A cylindrical container has a volume of 3260 cubic centimetres. The radius of the cross section is 6.4 centimetres. Calculate the height of the cylinder.

3 marks

