National 5

Short Task 12

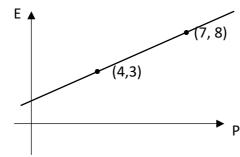
Round all answers to an appropriate degree of accuracy unless specifically stated

- 1. Factorise $3x^2 + 17x 6$
- 2. The diagram below shows the cross section of a wooden sphere, with a diameter of 32mm. After the coating is applied, the diameter is 54mm.

Calculate the volume of aluminium required to coat the wood.



3. Find the equation in terms of E and P



4a. Calculate the standard deviation of the data below:

16 11 14 19 19 10 16

- 4b. Another group of data has a standard deviation of 3.8. Make a valid comparison about both sets of data.
- 5. A planet is 4.51×10^{42} km from Earth. Given that 1 mile = 1.6 km calculate how many miles this is from Earth. Round your answer correct to 2 significant figures.
- 6. Express $\frac{6}{\sqrt{20}}$ with a rational denominator in its simplest form.