

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

- 1a. Fully factorise

$$3p^2 - 12$$

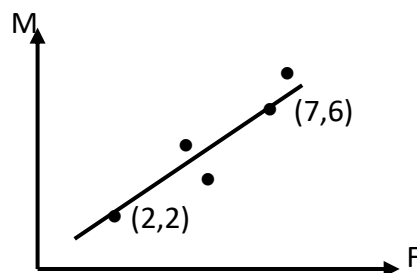
- 1b. Hence simplify

$$\frac{p^2 + 4p - 12}{3p^2 - 12}$$

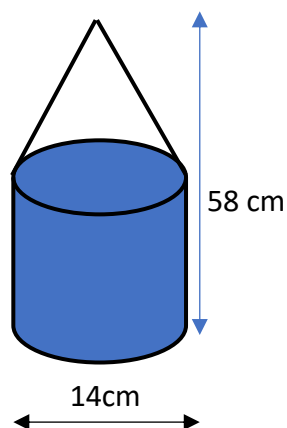
2. Write without brackets

$$\left(\frac{2}{3}x^2y^4\right)^3$$

3. Find the equation of the line shown below in terms of M and F.



4. The shape below consists of a cylinder and a cone. The cone and the cylinder have the same height. Work out its volume. Round your answer correct to 3 significant figures.



5. Write without brackets

$$(x - 5)(x - 2)(2x + 1)$$

6. Express with a rational denominator in its simplest form.

$$\frac{8}{\sqrt{6}}$$

