

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

1. Change the subject of the formula to P

$$c = 3P - 5q$$

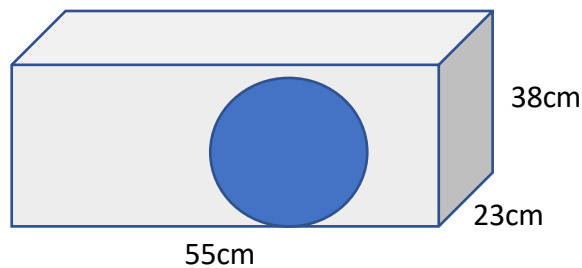
2. John sold his watch and made a loss of 25%.

If he sold it for £96, calculate how much John paid for his watch.

3. Find the gradient and y-intercept of the straight line with equation $3x - 2y + 14 = 0$
4. Write with a rational denominator and simplify

$$\frac{8}{\sqrt{12}}$$

5. A water tank in the shape of a cuboid is **half** full.

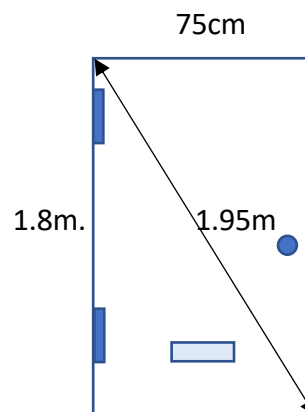


- a. Calculate the volume water in the tank.
- b. A spherical ball with diameter 32cm is added to the tank.

Will the tank overflow when the ball is added?

Show all your working.

6. A door has to be made with these dimensions.



The door needs to be perfectly rectangular at the front to pass inspection.

Would this door pass inspection? Explain your answer.