A circle, centre (0, 0) has a circumference of 16π

Work out the equation of the circle.

There are 30 children in Miss Robu's class.

17 enter a poetry competition
22 entry an art competition
4 enter neither competition.

Two of the children are selected at random.

Find the probability that both children entered both competitions.

The turning point of the graph
y = x² + ax + b, where a and b are integers, is (5, –2)

Find a and b

Make x the subject

$$c = \frac{3x - 4}{x} + \frac{x + 1}{2x}$$

In triangle CDE, CD = (x + 1)cm,
DE = (x + 3)cm and CE = 5cm.
Angle CDE = 60°

Calculate x to 2 decimal places.