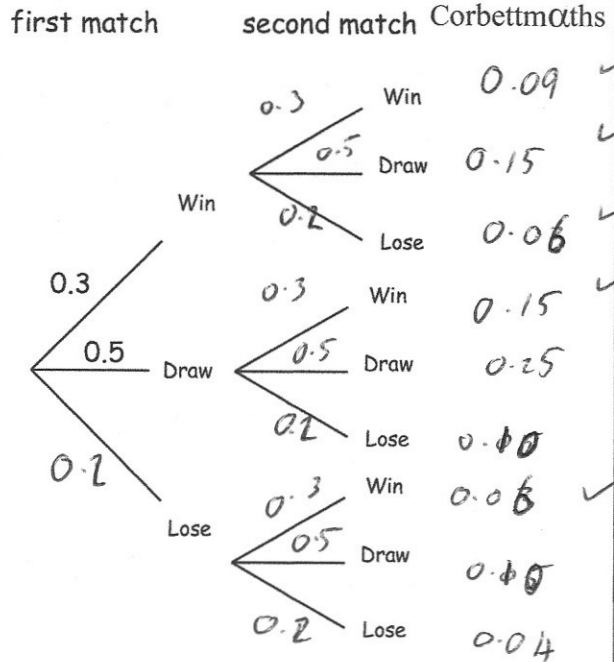


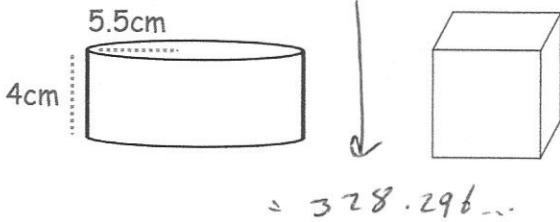


The probability that a football team wins a match is 0.3
 The probability that they draw is 0.5
 The football team plays two matches
 A win is worth 3 points, a draw 1 point and a loss 0 points
 Calculate the probability that the team scores at least 3 points over the two matches.

prob 0.51



$$\pi \times 5.5^2 + \pi \times 5.5^2 + \pi \times 11 \times 4$$



The cylinder and cube below have the same surface area.
 Find the side length of the cube, x.

$$6x^2 = 328.29643...$$

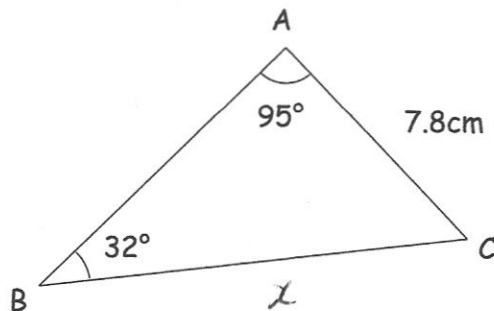
$$x^2 = 54.716...$$

$$x = 7.397 \text{ cm}$$

Find the length of BC

$$\frac{x}{\sin 95} = \frac{7.8}{\sin 32}$$

$$x = 14.66 \text{ cm}$$



w is inversely proportional to the square root of c.

When w = 2, c = 100.

Find w when c = 400.

$$w \propto \frac{1}{\sqrt{c}} \quad w = \frac{20}{\sqrt{c}}$$

$$w = \frac{k}{\sqrt{c}} \quad w = \frac{20}{\sqrt{400}} = 1$$

$$2 = \frac{k}{10} \quad k = 20$$