

$$\Delta = \frac{1}{2} \times 22 \times 22 \times \sin 50$$

$$= 185.3827... \text{ cm}^2$$

Sector

$$\frac{50}{360} \times \pi \times 22^2$$

$$= 211.1848...$$

Calculate the area of the segment

$$25.8 \text{ cm}^2$$

Work out the nth term for the sequence

1, 5, 15, 31, 53 ...

4 10 16 22

6 6 6

$$a = 3$$

$$b = -5$$

$$c = 3$$

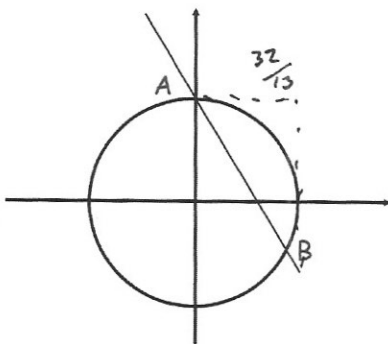
$$3n^2 - 5n + 3$$

Find the 10th term in the sequence

$$3n^2 - 5n + 3$$

$$n = 10$$

$$300 - 50 + 3 = 253$$



Find the coordinates of points A and B

$$65x^2 - 160x = 0$$

$$x(65x - 160) = 0 \quad A(0, 10)$$

$$x = 0 \quad \text{or} \quad x = \frac{32}{13}$$

$$B\left(\frac{32}{13}, -\frac{126}{13}\right)$$

$$y = 0 \quad y = -\frac{126}{13}$$

The circle $x^2 + y^2 = 100$ and the line $8x + y - 10 = 0$ meet at the points A and B

$$y = 10 - 8x$$

$$x^2 + (10 - 8x)^2 = 100$$

$$x^2 + 100 - 160x + 64x^2 = 100$$

Find the length of AB.

$$AB = \sqrt{\left(\frac{32}{13}\right)^2 + \left(-\frac{126}{13} - 10\right)^2}$$

$$AB = \sqrt{\frac{1024}{169} + 387.786...}$$

$$AB = \sqrt{\frac{5120}{13}} = 19.8456...$$

Shown is $y = \cos(x)$

On the same grid, sketch

$$y = \cos(x) + 2$$

