1 Make a sketch of the following graphs:

a) $y = 3\cos x°$ b) $y = \sin 2x°$

2 Write down the maximum and minimum values of:

a) $y = 3 + \sin x°$ b) $y = 2 + 3\cos x°$

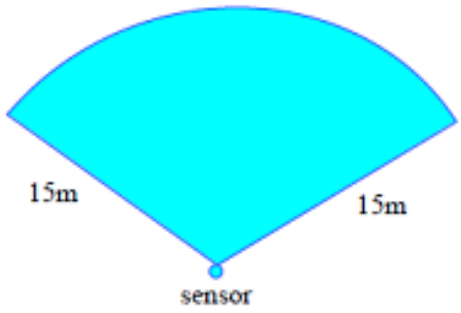
3 Solve the following equations; for $0 \leq x < 360$:

a) $5\sin x° = 4$ b) $2 + \cos x° = 1.5$

4 Find the point of intersection of the straight lines with equations.

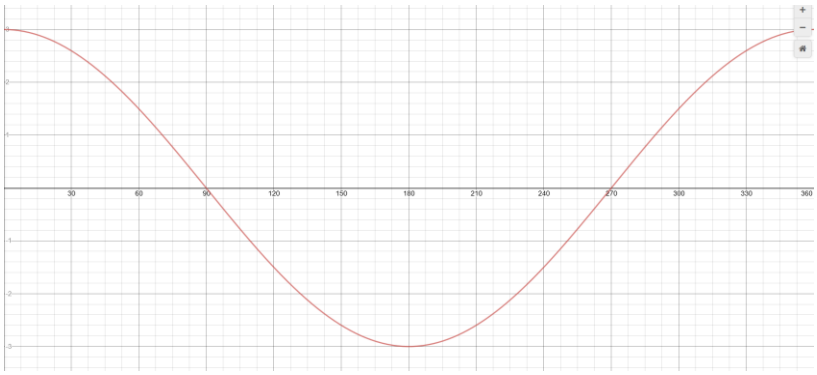
$2x + y = 5$ and $x - 3y = 6$

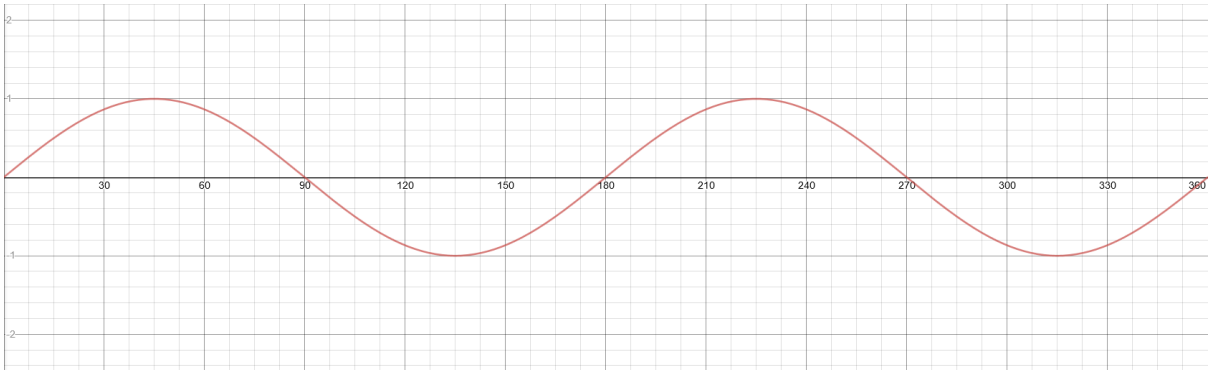
5 A sensor in a security system covers a horizontal area in the shape of a sector of a circle of radius 15metres



The area of the sector is 200 square metres.
Calculate the perimeter of the horizontal area covered by the sensor.

SOLUTIONS.





2. a) max 3 , min -3 b) max 5 , min -1

3.a) 53.13 and 126.87 b) Use 60 to find solutions of: 120, 300

4. (3,-1)

5. $200 = \frac{\emptyset}{360}\ \pi \times 15^2$ so angle = 101.9^0

$$\frac{101.9}{360} \times \pi \times 30 = 26\frac{2}{3}\ m$$

Perimeter = 15 + 15 + $26\frac{2}{3}$ = $56\frac{2}{3}\ m$