

HIGHER Practice B

1. A circle has a circumference of 40cm. Work out the diameter of the circle to **one decimal place**.

2. A major sector has an angle of 200° and radius 12cm. Work out the area of the sector.

3. Solve the following equations

(a) $3(x + 7) = 7x - 3$

(b) $13 - 4x = x + 9$

4. A regular polygon has an interior angle of 144° .

(a) What is the size of each exterior angle?

(b) How many sides does the polygon have?

5. Show the following inequalities on two separate number lines

(i) $x > -2$

(ii) $0 < m < 5$

6. Solve the inequality $6x - 3 > 21$ and show your solution on a number line.

7. A map has a scale of 1 : 200 000

Work out the real distance of two towns 4.5 cm apart on the map.

8. Work out $3\frac{3}{5} + 4\frac{1}{8}$

9. Work out

(a) $\frac{4}{5} - \frac{1}{3}$

(b) $2\frac{1}{3} \div \frac{2}{5}$

10. As a Christmas bonus, an employee receives **15% more** than his usual monthly salary. If he receives £1840 for his Christmas pay, what is his **usual** monthly salary