9. The sum of the ages of a father and his son is 45 years. Five years ago, the product of their ages (in years) was 124. Determine their present ages.



10. The perimeter of a rectangle is 36cm and its area is 80sq.cm. Find its dimensions.

Solution: Let 1 be the length, b be the breadth of the rectangle

$$2l + 2b = 36 \implies l + b = 18 \implies b = 18 - l$$

$$lb = 80$$

$$\therefore l (18 - l) = 80$$

$$18l - l^{2} = 80$$

$$l^{2} - 18l + 80 = 0$$

$$(l - 10)(l - 8) = 0$$

$$l = 10 \text{ or } l = 8$$

$$b = 8 \text{ or } b = 10$$