

SECTION - I

d)

Solution x and $5x$

Let the Product of two numbers is 320.

$$x \cdot 5x = 320$$

$$x \times 5x = 320$$

$$5x^2 = 320$$

$$\sqrt{x^2} = \frac{320}{5} = 64 = \sqrt{64}$$

$$x = 8 \Rightarrow 5x = 5 \times 8 = 40$$

Difference between squares of these numbers is

$$(x^2 - 5x^2)$$

$$5x^2 - x^2 = (40)^2 - (8)^2$$

$$= 1600 - 64 = 1536 \text{ Ans}$$

a) SolutionLet Current Father age = x Current son age = $y = 30$ Five years ago, father age = $x - 5$ Five years ago son age = $y - 5$

\therefore Father age is thrice the son's age = ~~3(x-5)~~

$$(x - 5) = 3(y - 5)$$

$$x - 5 = 3(30 - 5)$$

$$(x-5) = 3(25)$$

$$x-5 = 75$$

$$x = 75+5 = 80$$

$$x = 80$$

Current father age is 80 -

Question no 7

a)

Solution:

Let price of each scooty be C.

First scooty selling price = 96000

profit on first scooty = 20%.

$$= \frac{96000}{20\%} = \frac{96000}{\frac{20}{100}} = \frac{96000}{1.20}$$

$$= 80000$$

For second scooty, selling price

is 96000 and loss is 20%. So,

$$C = \frac{96000}{0.80} = 120000$$

Total cost price for both Scooties

$$\text{is } 80000 + 120000 = 200000$$

and selling price

$$96000 + 96000 = 192000$$

$$\text{loss} = 200000 - 192000 = 8000$$

$$\text{loss \%} = \frac{8000}{200000} \times 100\% = 4\%$$