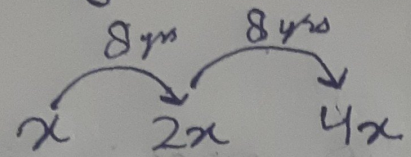
Q. If Rs. 2000 amounts to Rs 2880 in 2yrs at Compound interest, what is the rate of interest per annum. if the interest is being Compound annually?

$$A = P\left(1+\frac{R}{100}\right)^n$$

Q. A Sum doubles in 8 yrs at Compound interest. In how many yrs will the Sum becomes 4times the original Sum if the interest is Compounded annually?

Sol



16 yrs Ans

Q. The difference b/w the Compound interest and Simple interest on a Certain Sum at 12% per annum for 2yrs is Rs. 126.72. Find the Sum.

Sol

$$D = P\left(\frac{R}{100}\right)^2$$

$$CI - SI \text{ for } 2\text{yrs} = P\left(\frac{R}{100}\right)^2$$

Q. A Shopkeeper professes to sell his goods at 10% profit, But he uses 20% less weight. Find his total profit percent.

CP → 1000 / 1000gm $\times 4$ / $\times 4$ $= \frac{₹4000}{4000gm}$

SP → 1100 / 800gm (+10%, −20%) $\times 5$ / $\times 5$ $= \frac{₹5500}{4000gm}$

Profit = 5500 − 4000 = 1500

$$P\% = \frac{1500}{4000} \times 100$$

$$= 37.5\%$$

Q. A retailer purchase 40 pens at the mark price of 36 pens and sell them at a discount of 1%. Find the profit percent of Shopkeeper.

Sol

MP → ₹40 [MP → ₹1/1 pen
CP → ₹36
SP → ₹39.6 ← 0.4 (-1%)

$$P = 39.6 - 36 = 3.6$$

$$P\% = \frac{3.6}{36} \times 100$$

$$= 10\%.$$

Q. After giving 20% discount a Shopkeeper earn 30% profit then find his profit percent if he will give 25% discount on the same article.

CP → 100%.
SP → 130%.

Sol

MP → 100
SP → 80
CP → $\frac{80}{130} \times 100 = \frac{800}{13}$
-25% → New SP → 75

$$P\% = SP - CP = \frac{975}{13} - \frac{800}{13} = \frac{175}{13} \times 100$$

$$\frac{800}{13}$$

$$= \frac{175}{13}\%.$$