

## Exercise 9B.

17 Let the sum borrowed = ₹100  
Given, Interest charged =  $0.24 \times ₹100 = ₹24$   
 $T = 3$  years

$$\therefore \text{Rate} = \frac{I \times 100}{P \times T} = \frac{24 \times 100}{100 \times 3} = 8\%$$

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24(i)  $A = ₹4620$

$$P = ₹3750$$

$$I = A - P = ₹4620 - ₹3750 = ₹870$$

$$T = 3 \text{ years}$$

$$R = \frac{I \times 100}{P \times T} = \frac{870 \times 100}{3750 \times 3} = \frac{116}{15} = 7\frac{11}{15}\%$$

(ii)  $P = ₹7500$

$$R = \frac{116}{15}\%$$

$$T = 5\frac{1}{2} = \frac{11}{2} \text{ years}$$

$$I = \frac{P \times R \times T}{100} = \frac{7500 \times 116 \times 11}{100 \times 75 \times 2} = ₹3190$$

$$3(i) \text{ Principal} = ₹100$$

$$\text{Amount} = 100 \times 2 = ₹200$$

$$\text{Interest} = A - P = 200 - 100 = 100$$

$$\text{Time} = 8 \text{ years}$$

$$\text{Rate} = \frac{100 \times I}{P \times T} = \frac{100 \times 100}{100 \times 8} = \frac{100}{8} = 12.5\%$$

$$ii) \text{ Simple Profit of principal} = ₹100$$

$$\text{Amount} = 100 \times 3 = ₹300$$

$$\text{Interest} = A - P = 300 - 100 = 200$$

$$\text{Rate} = \frac{200}{100 \times 2} = 25\%$$

$$\text{Time} = \frac{100 \times I}{P \times R} = \frac{100 \times 200}{100 \times 25} = 16 \text{ years.}$$