g) Given,

$$n = \frac{3}{2} \times 12 = 18 \text{ months}$$

$$R = 9\%$$

$$mv = ₹15,426$$

$$mv = Pn + I$$

$$I = Pxn\frac{(n+1)}{2 \times 12} \times \frac{R}{100}$$

$$mv = Pn + P(n)\frac{(n+1)}{2 \times 12} \times \frac{R}{100}$$

$$15426 = P \times 18 + \frac{P \times 18^{3} \times 19}{2 \times 17_{2}} \times \frac{9}{100}$$

$$15426 = \frac{P \times 18 \times 400}{1 \times 400} + \frac{P \times 3 \times 19}{4 \times 106} \times 9$$

$$6170400 = 7200p + 513P$$

$$6170400 = 7713p$$

$$P = \frac{6170400}{7713} \quad \frac{685600}{857}$$

$$\begin{array}{r} 4957 \\ \times 8 \\ \hline 6856 \end{array}$$

$$9 \overline{)6170400} = 685600$$

$$\begin{array}{l} -54 \\ \hline 77 \\ -72 \\ \hline 50 \\ -45 \\ \hline 54 \end{array}$$

$$P = \frac{685600}{857} \; 8$$

$$\boxed{P = ₤800}$$

10) Given,

$$T = \frac{3}{2} \times 12 = 18 \text{ months}$$

$$R = 6\% \qquad mv = 11313$$

$$mv - p = I$$

$$mv - p = p \times \frac{(n+1)}{2 \times 12} \times \frac{R}{100}$$

$$11313 - 18p = p \times \frac{3}{2} \times \frac{(19)}{12} \times \frac{6}{100}$$

$$2262600 = 3600p + 171p$$

$$2262600 = 3600P + 1771P$$

$$P = \frac{2262600}{3771}$$

$$\boxed{P = 600}$$

11) Given,

$P = ₹600$

$mv = ₹6165$

$R = 6\%$

Total 'n'.

$mv - In = I$

$mv - Pn = P\frac{(n)(n+1)}{2 \times 12} \times \frac{R}{100}$

$6165 - 600n = 6P\frac{(n)(n+1)}{2 \times 12} \times \frac{6}{100}$

$12330 - 1200n = 3n^2 + 3n$

$3n^2 + 1203n - 12330 = 0$

$n^2 + 401n - 4110 = 0$

$$n^2 + 401n - 4110 = 0$$

2	4110
5	2055
	411

$$n^2 + 411n - 10n - 4110 = 0$$

$$n(n + 411) - 10(n + 411) = 0$$

$$(n - 10)(n + 411) = 0$$

$$n \neq -411$$

$$\therefore \boxed{n = 10}$$

12) $P = ₹800$

$MV = 16700$

$R = 5\%$ To find n

$\therefore \quad MV - Pn = I$

$MV - Pn = P\frac{(n)(n+1)}{2} \times R$

$16700 - 800n = \frac{800 \times (n)(n+1)}{2 \times 12} \times \frac{5}{100}$

$50100 - 2400n = 5n^2 + 5n$

$5n^2 + 2405n - 50100 = 0$

$n^2 + 481n - 10020 = 0$

$$n^2 + 481n - 10020 = 0$$

$$n^2 + 501n - 20n - 10020 = 0$$

$$n(n+501) - 20(n+501) = 0$$

$$(n+501)(n-20) = 0$$

$$n \neq -501$$

$$\boxed{n = 20}$$

2	10020
2	5010
5	2505
	501

13) Given,

$P = ₹300$

$T = 2 \times 12 = 24$ months

$MV = 7725$ To find 'R'

$MV - Pn = I$

$7725 - 300 \times 24 = 525$

$I = P \frac{(n)(n+1)}{2 \times 12} \times \frac{R}{100}$

$525 = 300 \times \frac{24 \times 25}{24 \times 12} \times \frac{R}{100}$

$R = \frac{525}{75} = 7\%$

14) $P = ₹1000$

$R = 10\%$.

$I = 5550$ To find 'n'

$$I = \frac{P(n)(n+1)}{2 \times 12} \times \frac{R}{100}$$

$$5550 = \frac{5}{1000} \times \frac{n(n+1)}{2 \times 12} \times \frac{10}{100}$$

$$6660 = 5n^2 + 5n$$

$$5n^2 + 5n - 6660 = 0$$

$$n^2 + n - 1332 = 0$$

$$\begin{array}{r} 1331 \\ \sqrt{6610} \\ -65 \\ \hline 16 \\ -15 \\ \hline \end{array}$$

$$n^2 + n - 1332 = 0$$

$$n^2 + 37n - 36n - 1332 = 0$$

$$n(n+37) - 36(n+37) = 0$$

$$(n-36)(n+37) = 0$$

$$n \neq -37$$

$$\boxed{n = 36}$$