TUTORIAL SHEET - (12)

Solve:-

1) $x - 13 = 8$

2) $\frac{x}{3} = 12$

3) $5x - 15 = 0$

4) $\frac{3x}{2} = 9$

5) $3x - 1 = 11$

6) $\frac{x}{2} + 7 = 3$

7) $3(x - 2) = 15$

8) $\frac{4x+1}{3} - 5 = 2$

9) $x^2 + 3 = 52$

Make "x" the subject:-

10) $\frac{x}{a} = b$

11) $ax + b = c$

12) $P = \frac{x - a}{n}$

13) $\frac{x}{a} + p = N$

14) $P = N - x$

TUTORIAL SHEET - (12)

Make "R" the subject

15) $I = \frac{V}{R}$

16) $P = \frac{mR^2}{Q}$

17) $F = \frac{kmM}{R^2}$

18) $B = A - R^2$

19) $C = P - RN$

20) $C = \frac{R}{a} + \frac{S}{b}$

21) $N = M.\sqrt{RS - P}$

Change the subject to the letter indicated in the brackets.

22) $F = F_1 + F_2$ .....(F_1)

23) $h_2 = h_1 + F$ .....(h_1)

24) $t = s_1 + e - s_2$ .....(s_1)

25) $t = s_1 + e - s_2$ .....(s_2)

ANSWERS (to Tutorial sheet 12):-

(1) x=21 (2) x=36 (3) x=3 (4) x=6
(5) x=4 (7) x=7 (8) x=5 (9) x=7
(10) x=ab (11) $x=\frac{c-b}{a}$ (12) x=np+a
(13) x=a(N-p) (14) x=N-P (15) $R=\frac{V}{I}$
(16) $R=\pm\sqrt{\frac{PQ}{m}}$ (17) $R=\pm\sqrt{\frac{kmM}{F}}$
(18) $R=\pm\sqrt{A-B}$ (19) $R=\frac{P-C}{N}$
(20) $R=a(C-\frac{S}{b})$ (21) $R=\frac{N^2}{M^2S}+\frac{P}{S}$
(22) $F_1=F-F_2$ (23) $h_1=h_2-F$
(24) $s_1=t-e+s_2$ (25) $s_2=s_1+e-t$

TUTORIAL SHEET - (10)
(Harder Equations)

Solve:-

1) $\frac{2x-4}{3} = 7$

2) $5x + 10 - 3x = 6$

3) $7x - 4 = 5x + 9$

4) $5 - 2x = 13$

5) $12 - 3x = x + 6$

6) $5x - 7 = 2x - 7$

7) $\frac{x}{2} - 3 = 7$

8) $3(x-5) = 2x$

9) $\frac{x}{2} + \frac{x}{3} = 10$

10) $\frac{x}{2} + 4 = \frac{3x}{5}$

TUTORIAL SHEET - (10)
(Harder Equations)

11) $\frac{a+5}{4} = \frac{a}{3}$

12) $\frac{x-1}{3} - 2 = \frac{3x}{4}$

13) $\frac{3}{x} - 5 = \frac{2}{x}$

14) $\frac{3x-4}{2} - 10 = \frac{2x-5}{3}$

15) $5 - \frac{x-3}{4} = x$

16) $\frac{5}{x-1} = \frac{3}{5-x}$

ANSWERS (to Tutorial sheet 11.):-

(1) x=12.5 (2) x=-2 (3) x=6.5
(4) x=-4 (5) x=1.5 (6) x=0 (7) x=20
(8) x=15 (9) x=12 (10) x=40
(11) x=15 (12) x=-5.6 (13) x=0.2
(14) x=12.4 (15) x=4.6 (16) x=3.5