

$$x = 14 + 26 \text{ or } 14 - 26$$

$x$  is speed and hence the value  $-12$  can be discarded.  $\therefore x = 40$

Speed from home to town  $= x = 40$  Km/hr

Speed from city to home  $= x + 20 = 60$  Km/hr

a)  $10x \left(\frac{60}{48}\right) = 12.5$  minutes b)  $x^2 - 28x - 480 = 0$

c) Speed from home to town  $= 40$  Km/hr

Speed from city to home  $= 60$  Km/hr

15.

300	$x$	350
11	16.5	21

$$\frac{(x-300)}{(16.5-11)} = \frac{(350-300)}{(21-11)} \therefore \frac{(x-300)}{5.5} = \frac{50}{10}$$

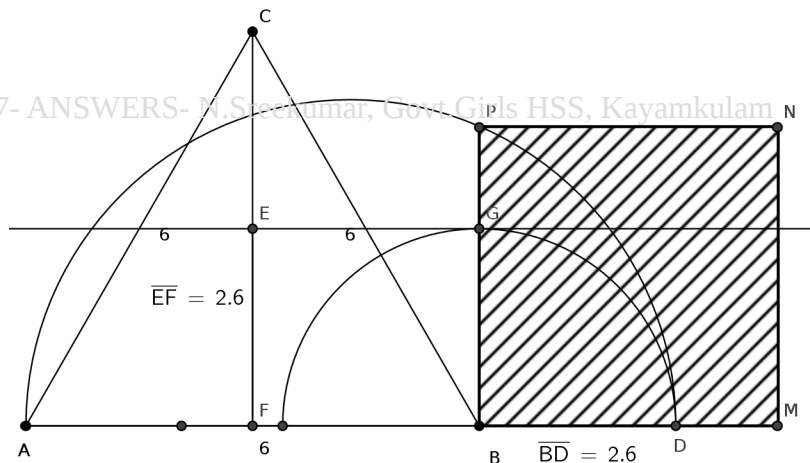
$$(x-300) = 5.5 \times \frac{50}{10} \therefore x = 300 + 27.5 = 327.5$$

Median of Daily wages  $= 327.50$  Rs.

Below 250	3
„ 300	11
„ 350	21
„ 400	27
„ 450	31
„ 500	33

$$N = \frac{33}{2} = 16.5$$

16.



17. a)  $\frac{(15 \times 16)}{2} = 15 \times 8 = 120$  b)  $\frac{15}{2}(2f + 14 \times 6) = 780 \therefore \frac{15}{2} \times 2(f + 42) = 780$

$\therefore$

$$15f + 15 \times 42 = 780 \therefore 15f = 780 - 630 = 150 \therefore f = 10 \therefore \text{Algebraic form of the sequence} = 6n + 10 - 6 = 6n + 4$$

$$\text{Algebraic Expression of the sum of the sequence} = 3n^2 + 7n$$

OR  
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$n^{\text{th}}$  term  $= 6n + 1 \therefore$  Common Difference (d)  $= 6$  First term (f)  $= 6n + 1 = 6 \times 1 + 1 = 7$  or (In  $an + b$ ,  $f = a + b$  and  $d = a$ )