

ASSIGNMENT-1

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CS21BTECH11059

1-b[ICSE 2014]. find the values of x for which it satisfies the equation
 $-2\frac{5}{6} \leq \frac{1}{2} - \frac{2x}{3} \leq 2$

Solution. let us solve the equation
The equation is given by

$$\begin{aligned} & \bullet -2\frac{5}{6} \leq \frac{1}{2} - \frac{2x}{3} \leq 2 \\ & \bullet -\frac{17}{6} \leq -\frac{2x}{3} \leq 2 \\ & \bullet -\frac{10}{3} \leq -\frac{2x}{3} \leq \frac{3}{2} \end{aligned}$$

multiplying - on all the sides,

$$\begin{aligned} & \bullet -\frac{3}{2} \leq \frac{2x}{3} \leq \frac{10}{3} \\ & \bullet -\frac{9}{2} \leq 2x < 10 \\ & \bullet -\frac{9}{4} \leq x < 5 \end{aligned}$$

as x belongs to whole numbers we
should consider our lower bound as
0

so values of x are : $0 \leq x < 5$