

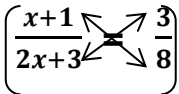
ST. THOMAS SCHOOL
WORKSHEET – 4 [2020-2021]
MATHEMATICS
CLASS VIII

Topic : Solution of equations reducible to simpler form or linear form

Key points

- Both sides of an equation may be divided or multiplied by the same non – zero number without changing the equality symbol.
- Any term of an equation may be taken to the other side with the sign changed.

Illustration: Solve $\frac{x+1}{2x+3} = \frac{3}{8}$

Step 1: On cross multiplication, $8(x + 1) = 3(2x + 3)$ 

Step 2 : $8x + 8 = 6x + 9$ [Multiplication of a binomial by a constant]

Step 3 : $8x - 6x = 9 - 8$ [By the rule of transposition]

Step 4 : $2x = 1$

$$x = \frac{1}{2}$$

Therefore, $x = \frac{1}{2}$ is the required solution.

Solve the following equations :

1. $\frac{6x+1}{3} + 1 = \frac{x-3}{6}$

5. $\frac{7y+4}{y+2} = \frac{-4}{3}$

2. $\frac{x-5}{3} = \frac{x-3}{5}$

6. $\frac{17(2-x)-5(x+12)}{1-7x} = 8$

3. $\frac{3t-2}{4} - \frac{2t+3}{3} = \frac{2}{3} - t$

7. $\frac{2x+1}{3x-2} = \frac{9}{10}$

4. $x+7 = \frac{8x}{3} = \frac{17}{6} - \frac{5x}{2}$

8. $\frac{3y+4}{2-6y} = \frac{-2}{5}$

NOTE: Students are requested to do the worksheet in separate notebook (it should be covered in purple and labelled neatly) or in A4 sheet.