**The City School**

North Nazimabad Boys Branch

Grade 9 Mathematics

**Topic: Algebraic Manipulation and Formulae**

Mr. Mohsin Zaki

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**TOPIC FOR 1ST MONTHLY ASSESSMENT**

* **Direct and Inverse Proportion**
* **Single denominator**
* **Changing the subject of Formulae**
* **Finding the value of an unknown in a Formulae**

Q1: Express each of the following as single denominator:

1. $\frac{2}{2x-1}-\frac{3}{5x+1}$
2. $\frac{3}{x+1}-\frac{2}{3x+4}$
3. $\frac{5}{2x-1}+\frac{3}{2x+1}$
4. $\frac{2}{x-y}-\frac{3}{x}$

Q2: Solve the following equations:

1. $\frac{x+5}{6}=\frac{3x-5}{8}$
2. $\frac{1-2x}{4}+\frac{2-x}{2}$ = 4
3. $\frac{x-1}{2}-\frac{x+1}{3} $= x
4. $\frac{5}{4x}-\frac{3}{2x}+\frac{2}{x}$ = 5

Q3: Make the letter in the brackets the subject of the formulae:

1. x = $\frac{y}{y+1}$ (y)
2. a = $\frac{1-t}{1+t}$ (t)
3. a = p + $\frac{prt}{100}$ ( p)
4. k =h+ $\frac{2hk}{5}$ (h)