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Nalanda Vidyalaya – Colombo 10
Unit Test Project

Grade 10	Mathematics	**Fractions**

1) Simplify

a) $3 \times \left(\dfrac{1}{2} - \dfrac{1}{3} \right)$

b) $\left(\dfrac{1}{2} \times \dfrac{1}{3} \right) \times 1\dfrac{1}{5}$

c) $\dfrac{\dfrac{3}{4} - \dfrac{1}{3}}{\dfrac{3}{4} \times \dfrac{1}{3}}$

d) $\dfrac{2\dfrac{1}{4} + 1\dfrac{1}{3}}{\dfrac{1}{4} - \dfrac{1}{6}}$

e) $3\dfrac{3}{8} - 5\dfrac{1}{2} + 4\dfrac{1}{4}$

f) $1\dfrac{3}{10} \div \left(\dfrac{1}{5} + \dfrac{2}{3} \right)$

g) $6 - \left[1\dfrac{1}{2} + 2\dfrac{1}{2} \right]$

h) $3\dfrac{1}{4} - \left(5\dfrac{1}{2} + 2\dfrac{2}{3} \right)$

2) Connect following fractions using the symbol "<"

$\dfrac{2}{3}, \quad \dfrac{5}{13}, \quad \dfrac{4}{7}$

3) Naveen had a small library. Out of the total number of books $\dfrac{1}{6}$ were child stories and $\dfrac{1}{4}$ were literature books. So he donated these books to the school.

i) What fraction of the total did Naveen donate to school.
ii) If he donated 150 books, find the number of books that he had?
iii) Naveen gave 60 books to his neighbour and he sold rest. What fraction of the total did Naveen give to his neighbour.

4) $\dfrac{4}{5}$ of a tank was filled with water. When 150 *l* was removed there was $\dfrac{1}{2}$ of its volume. Find the capacity of the tank.

5) a) A man gave $\dfrac{1}{2}$ of a land to his wife and $\dfrac{1}{4}$ from the rest was sold. After that the remaining land was divided between son and daughter equally. Daughter got Rs. 600 000 worth land.

   1) Find the value of the total land.
   2) Find the value of the land sold.

   b) Priyanthi travels $\dfrac{3}{5}$ of a certain distance by train and $\dfrac{1}{4}$ from the remaining by bus and the remaining 6 km by a three wheel. Find total distance.