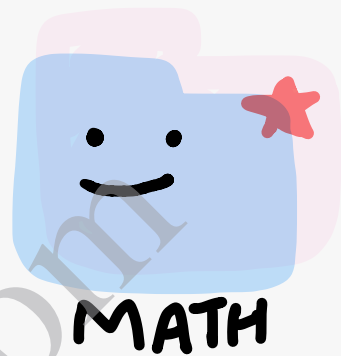


Number System

Ex. 1.1



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Ex. 1.1

1.) Yes, 0 is a rational number.
Yes, 0 can be written in the form of $\frac{p}{q}$
i.e. $\frac{0}{1}$

2.) $6 + 1 = 7$
 $3 = \frac{3}{1} \times \frac{7}{7} = \frac{21}{7}$
 $4 = \frac{4}{1} \times \frac{7}{7} = \frac{28}{7}$

Six rational numbers are

$$\frac{22}{7}, \frac{23}{7}, \frac{24}{7}, \frac{25}{7}, \frac{26}{7}, \frac{27}{7}$$

OR

3 and 4 can be written as 3.0 and 4.0

Six rational numbers are

$$3.1, 3.2, 3.3, 3.4, 3.5, 3.6$$

3.) $\frac{3}{5}$ and $\frac{4}{5}$

$$5 + 1 = 6$$

$$\frac{3}{5} = \frac{3}{5} \times \frac{6}{6} = \frac{18}{30}$$

$$\frac{4}{5} = \frac{4}{5} \times \frac{6}{6} = \frac{24}{30}$$

Five rational numbers are

$$\frac{19}{30}, \frac{20}{30}, \frac{21}{30}, \frac{22}{30}, \frac{23}{30}$$

3) OR

$$\frac{3}{5} = 0.6 \quad \text{and} \quad \frac{4}{5} = 0.8$$

0.6 and 0.8 can be written as 0.60 and 0.80

Five rational numbers are

0.61, 0.62, 0.63, 0.64, 0.65

4) (i) True, every natural number is a whole number as all the natural numbers belong to whole numbers.

(ii) False, every integer is not a whole number e.g. (-5) is an integer but not a whole number.

(iii) False, every rational number is not a whole number e.g. $\frac{2}{5}$ is a rational number but not a whole number.