Exercise 1C

Questions 1:

Rational Numbers: The numbers of the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$ are called rational number.

Irrational Numbers : The numbers which when expressed in decimal form and expressible as non- terminating and non-repeating decimal are known as irrational number.

Real numbers: A number which is rational or irrational is called real number.

Questions 2:

(i) $\frac{22}{7}$ is rational

(ii) 3.1416 is a terminating and non-repeating decimal, so it is rational.

(iii) π is irrational

(iv) $3.\overline{142857}$ is in non-terminating repeating decimal form, so it is rational

(v) 5.636363..... is a non-terminating repeating decimal. So it is a rational.

(vi) 2.040040004.... is a non-terminating and non-repeating decimal, so it is irrational.

(vii) 0.535335333..... is a non-terminating and non-repeating decimal, so it is irrational.

(viii) 3.121221222..... is a non-terminating and non-repeating decimal. So it is an irrational number.

(ix) If 21 is a positive integer which is not a perfect square, then $\sqrt{21}$ is irrational.

(x) If 3 is a positive integer which is not a perfect cube, then $\sqrt[3]{3}$ is irrational.

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