

NORTH-EX PUBLIC SCHOOL (Session 2020-21)

Class - VII

Subject - Mathematics

Chapter – 3 (Rational Numbers)

Topic – Terminating and Non – terminating Decimals

Worksheet No - 6

*Note- Before attempting the question and answers you must check the link given below which will help you understand the chapter thoroughly.

<https://youtu.be/6fd3lvKO8ao>

You can download the assignment or if you do not have the facility to get printout then you can ask your ward to copy the assignment in a simple notebook and must do question and answers in the notebook.

NOTES:

Terminating Decimal

A decimal number that has digits that end.

0.25

↑
terminates
(ends)

Examples:

0.25 (it has two decimal digits)

3.0375 (it has four decimal digits)

In contrast a **Recurring Decimal** has digits that go on forever

Example: $1/3 = 0.333\dots$ (the 3 repeats forever) is a Recurring Decimal, not a Terminating Decimal

Non terminating decimal



Repeating decimal

Non repeating decimal

It can be converted
into fraction

It can not be converted
into fraction

Rational

Irrational



Worksheet:

Work - Sheet - 6

Answers

①
$$\begin{array}{r} 4 \overline{) 15} \overline{) 3.75} \\ \underline{12} \\ 30 \\ \underline{28} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

$\therefore \frac{15}{4} = 3.75$

② Let $x = 0.\overline{6}$ ——— ①
Here only one digit in the decimal part is repeating, so we multiply it by 10

$10x = 6.\overline{6}$ ——— ②
Subtract ① from ②

$10x - x = 6.\overline{6} - 0.\overline{6}$

$9x = 6$

$x = \frac{6}{9}, \quad x = \frac{2}{3}$

③ (a) $\frac{25}{100}$ (b) $= \frac{13}{1000}$

4-6 by which number should we divide $\frac{5}{11}$ to get $\frac{5}{9}$?

④ Let $x = 0.\overline{35}$

Here two digit in the decimal part are repeating,
So we multiply it by 100

Subtract ① from ② we get

$$100x - x = 35.\overline{35} - 0.\overline{35}$$

$$99x = 35$$

$$x = \frac{35}{99}$$

⑤ $3 \overline{) 2.0000} 0.6666$

$$\begin{array}{r} 18 \\ \hline 20 \\ 18 \\ \hline 20 \\ 18 \\ \hline 20 \\ 18 \\ \hline 2 \end{array}$$

$$\frac{2}{3} = 0.6666$$

⑥ Let the number be x

According to the statement

$$\frac{5}{11} \div x = \frac{5}{9}$$

$$\frac{5}{11} \times \frac{1}{x} = \frac{5}{9}$$

$$\frac{5}{11x} \xrightarrow{\times 11} \frac{5}{9}$$

$$45 = 55x$$

$$x = \frac{45}{55}$$

$$x = \frac{9}{11}$$

So, $\frac{5}{11}$ should be divided by

$\frac{9}{11}$ to get $\frac{5}{9}$