IX 14/04

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4. $\frac{3}{13} = 0.\overline{230769}$

$$
\begin{array}{r|l}
13 & 3.00000 \\
-26 & \\
\hline
40 & \\
-39 & \\
\hline
100 & \\
-91 & \\
\hline
90 & \\
-78 & \\
\hline
120 & \\
-117 & \\
\hline
3 &
\end{array}
\quad 0.230769
$$

Non-terminating (repeating)

5. $\frac{2}{11} = 0.\overline{18}$

$$
\begin{array}{r|l}
11 & 2.0000 \\
-11 & \\
\hline
90 & \\
-88 & \\
\hline
20 & \\
-11 & \\
\hline
9 &
\end{array}
\quad 0.181
$$

Non-terminating (repeating)

~~Exercise - 1.2~~

IX 1.4/4

1. True / False

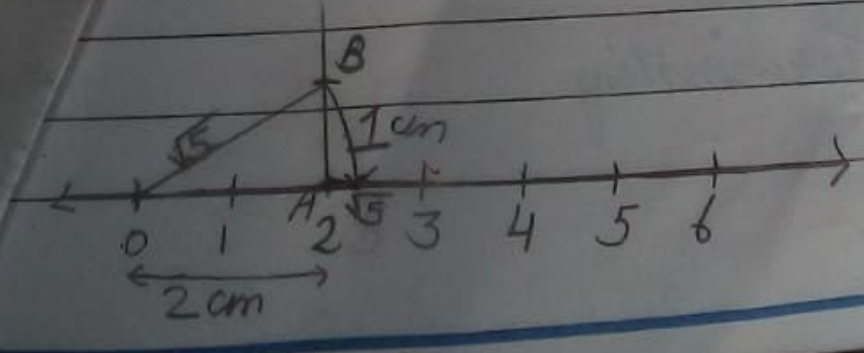
1. Every irrational number is a real number.
→ True because real no. is a combination of rational and irrational no.

2. Every point on the number line is of the form $\sqrt{m}$, where m is a natural number.
→ False, no negative number can be the square root of any natural number.

3. Every real no. is an irrational no.
→ False, for example 2 is real but not irrational.

2. ⇒ No. For example, $\sqrt{4} = 2$ is a rational number.

3. $OB = \sqrt{(2)^2 + (1)^2}$ (By pythagoras theorem)
$= \sqrt{4+1}$
$= \sqrt{5}$



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14/4/20 Exercise - 1.3 Home - Work

Q-1.

1. $\frac{36}{100} = 0.36$

Terminating decimal

2. $\frac{1}{11}$

$$11\overline{)1.0000}\,(0.0909 \quad (0.0909)$$

$$\begin{array}{r} -99 \\ \hline 100 \\ -99 \\ \hline 1 \end{array}$$

$= 0.\overline{0909}$

Non-terminating (repeating)

3. $4\frac{1}{8} = \frac{33}{8}$

$$8\overline{)33.000}\,(4.125$$

$$\begin{array}{r} -32 \\ \hline 10 \\ -8 \\ \hline 20 \\ -16 \\ \hline 40 \\ -40 \\ \hline X \end{array}$$

$= 4.125$

Terminating