

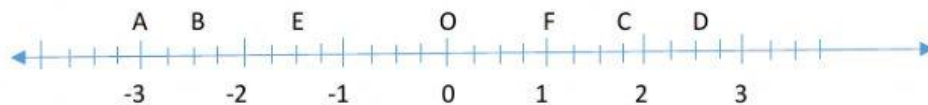
Q.1 Fill in the Boxes.

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1.  $\frac{5}{3}, \frac{-3}{4}, \frac{7}{-2}, -\frac{1}{5}$  are ----- numbers.

- a) Integers                  b) Natural                  c) Rational                  d) Whole

2. From the number line given below, which number is indicated by point E?



- a)  $-\frac{6}{4}$                   b)  $\frac{6}{4}$                   c)  $-\frac{3}{4}$                   d)  $\frac{8}{4}$

3. Compare the numbers.      0       $-\frac{9}{5}$ 

- a) <                  b) >                  c) =                  d) Can't say.

4. Index from of "Fifth root of 15" = -----

- a)  $(15)^{\frac{1}{5}}$                   b)  $(51)^5$                   c)  $(15)^{\frac{5}{1}}$                   d)  $(51)^{\frac{1}{5}}$

Q.2 Match the following.

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Group A

Group B

- |                         |                                       |
|-------------------------|---------------------------------------|
| 1. $(49)^{\frac{1}{7}}$ | i) Square root of 49                  |
| 2. $(49)^{\frac{1}{2}}$ | ii) Cube root of 49                   |
| 3. $(49)^{\frac{6}{7}}$ | iii) Seventh root of 49               |
| 4. $(49)^{\frac{1}{3}}$ | iv) Sixth power of Seventh root of 49 |

Q.3 Solve the following questions.

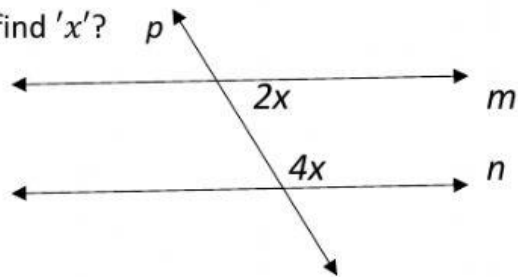
6

1. Write  $\frac{-13}{11}$  number in decimal form.

$$\begin{array}{r}
 11 \overline{) 13} \\
 \underline{-11} \phantom{0} \\
 020 \\
 \underline{-11} \phantom{0} \\
 090 \\
 \underline{-88} \phantom{0} \\
 20
 \end{array}$$

$$\therefore \frac{-13}{11} =$$

2. In the figure given below, if *line m*  $\parallel$  *line n*, and *line p* is a transversal, then find '*x*'?



Here, *line m*  $\parallel$  *line n*, and *line p* is a transversal

And given angles '*2x*' and '*4x*' are interior angles.

$\therefore$  by property of interior angles,

$$2x + 4x = 180^0$$

$$\therefore 6x = 180^0$$

$$\therefore x =$$

$$\therefore x =$$

3. Find the cube of 0.03.

$$(0.03)^3 =$$

(Multiplication form)

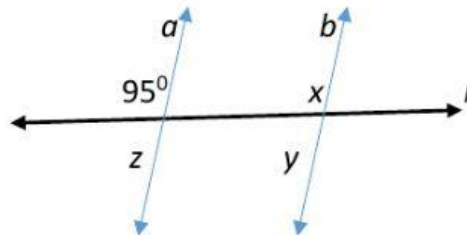
$$(0.03)^3 =$$

(Answer)

Q.4 Solve the following questions.

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1. In the figure given below, *line a*  $\parallel$  *line b*, and *line l* is a transversal, find the measures of  $\angle x$ ,  $\angle y$  and  $\angle z$  using the given information.



i)  $\angle x = ?$

a)  $95^\circ$

b)  $85^\circ$

c)  $100^\circ$

d)  $180^\circ$

ii)  $\angle y = ?$

a)  $95^\circ$

b)  $85^\circ$

c)  $100^\circ$

d)  $180^\circ$

iii)  $\angle z = ?$

a)  $95^\circ$

b)  $85^\circ$

c)  $100^\circ$

d)  $180^\circ$

2. The number  $\sqrt{2}$  is shown on a number line. Steps are given to show  $\sqrt{3}$  on the number line using  $\sqrt{2}$ . Fill in the boxes properly and complete the activity.

Activity :

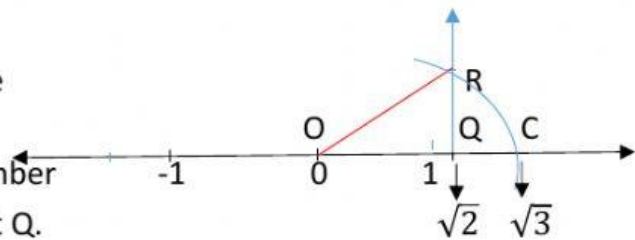
1. The point Q on the number line shows the number  $\sqrt{2}$

2. A line perpendicular to the number

Line is drawn through the point Q.

Point R is at unit distance from Q on the line.

3. Right angled  $\Delta ORQ$  is obtained by drawing seg OR.



$$4. \ l(OQ) = \sqrt{2}, l(QR) = 1$$

$\therefore$  by *Pythagorus theorem*,

$$[l(OR)]^2 = [l(OQ)]^2 + [l(QR)]^2$$

$$= (\sqrt{2})^2 + (1)^2$$

$$= \quad +$$

$$= \quad \therefore l(OR) = \sqrt{3}$$

Draw an arc with center O and radius OR. Mark the point of intersection of the line and the arc as C. The point C shows the number  $\sqrt{3}$ .