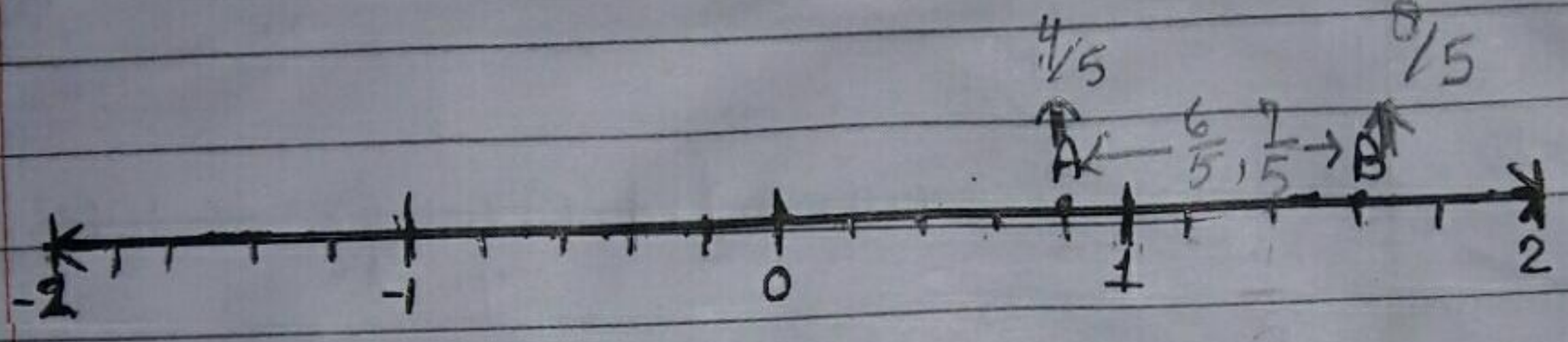
Date

Exercise - 1.2

1. Tick (✓) the correct option.

(a.) Which one of the following rational numbers lies between A & B?

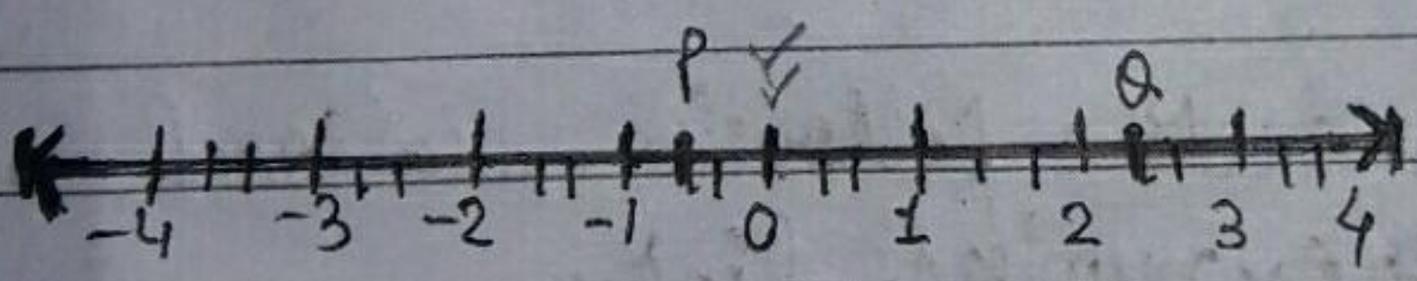


i) $\frac{-2}{3}$

ii) $-\frac{1}{2}$

iii) 0

iv) $\frac{6}{5}$ ✓

(b) 

(i) 0 ✓

(ii) $\frac{21}{5}$

(iii) $\frac{-6}{4}$

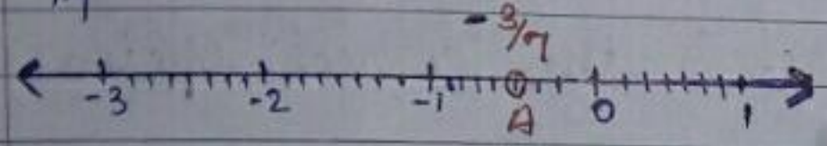
(iv) $\frac{15}{4}$

Q.2. Represent the following rational numbers on the number line.

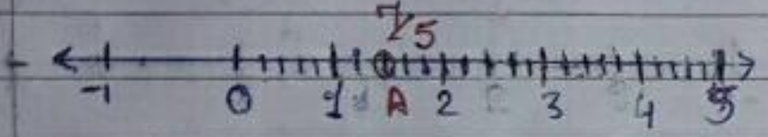
a. $\frac{-3}{7}$

Q.2

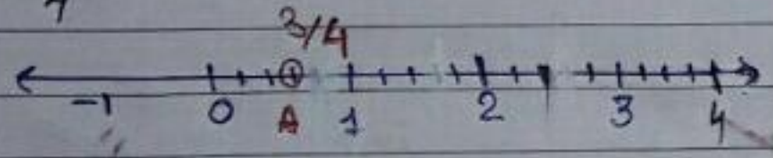
$-3/7$



(e) $\frac{7}{5}$



(j) $\frac{3}{4}$



Q-3 Represent the following rational numbers on the same number line.

(a) $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}$ and $\frac{4}{5}$

On taking LCM of Denominators (2, 3, 4 & 5)

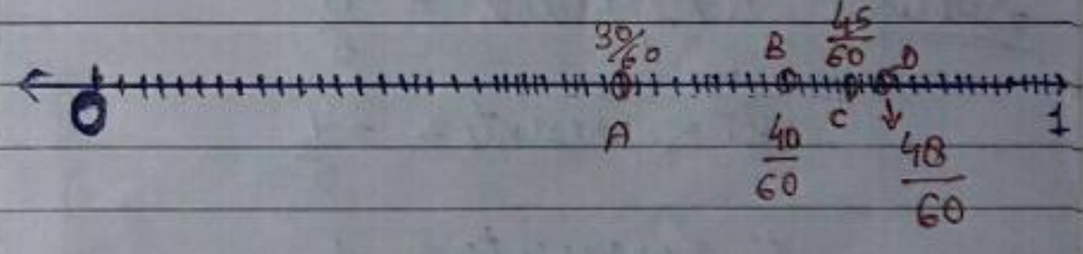
LCM of (2, 3, 4 & 5) = 60

$\frac{1}{2} = \frac{1 \times 30}{2 \times 30} = \frac{30}{60}$

$\frac{2}{3} = \frac{2}{3} \times \frac{20}{20} = \frac{40}{60}$

$\frac{3}{4} = \frac{3}{4} \times \frac{15}{15} = \frac{45}{60}$

$\frac{4}{5} = \frac{4}{5} \times \frac{12}{12} = \frac{48}{60}$



(c) 0, $\frac{1}{2}, \frac{-5}{3}, \frac{4}{3}$ and $\frac{-7}{6}$

LCM of (1, 2, 3, 6) = 6

$\frac{0}{1} \times \frac{6}{6} = \frac{0}{6} = 0$, $\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$

$\frac{-5}{3} \times \frac{2}{2} = \frac{-10}{6}$, $\frac{4}{3} \times \frac{2}{2} = \frac{8}{6}$

$\frac{-7}{6} \times \frac{1}{1} = \frac{-7}{6}$

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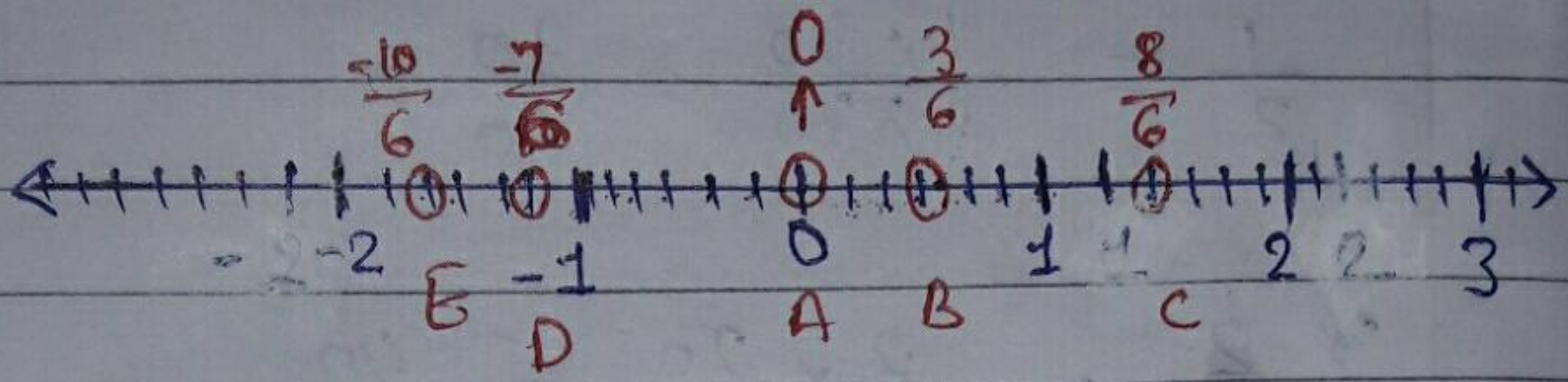
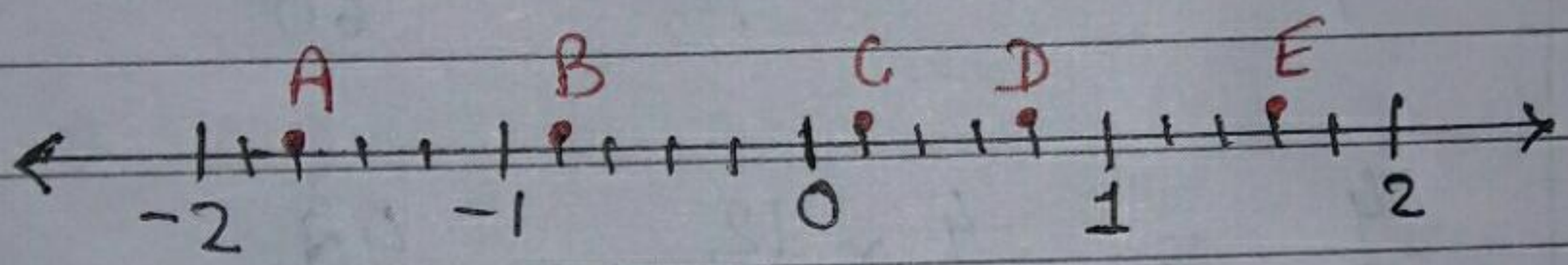


Q-4 Write the rational numbers represented by letters on the following number line

(a)



Solution: A Represents $= \frac{-8}{5}$

B Represents $= \frac{-4}{5}$

C Represents $= \frac{1}{5}$

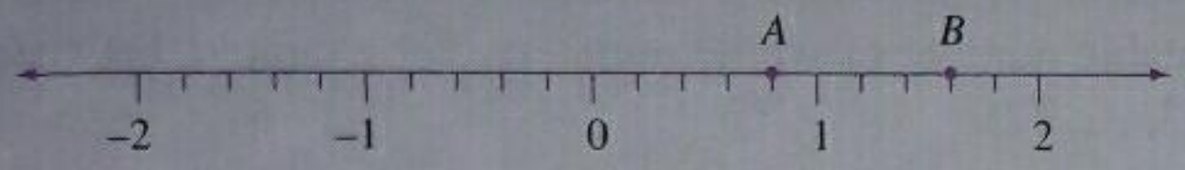
D Represents $= \frac{4}{5}$

E Represents $= \frac{8}{5}$ Ans

Exercise 1.2

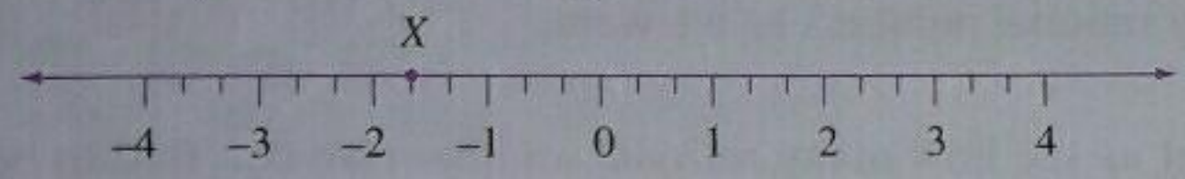
1. Tick (✓) the correct option.

a. Which one of the following rational numbers lies between A and B?



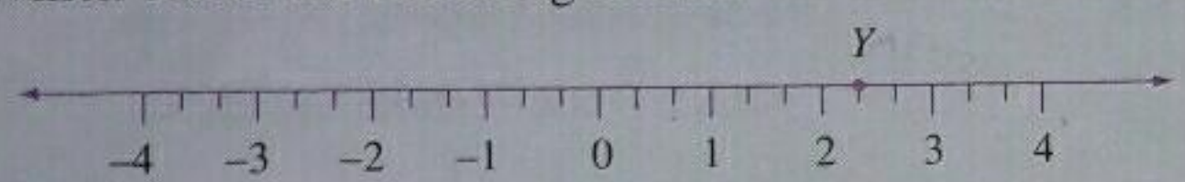
i. $\frac{-2}{3}$ ii. $\frac{-1}{2}$ iii. 0 iv. $\frac{6}{5}$

b. Which one of the following rational numbers lies before X?



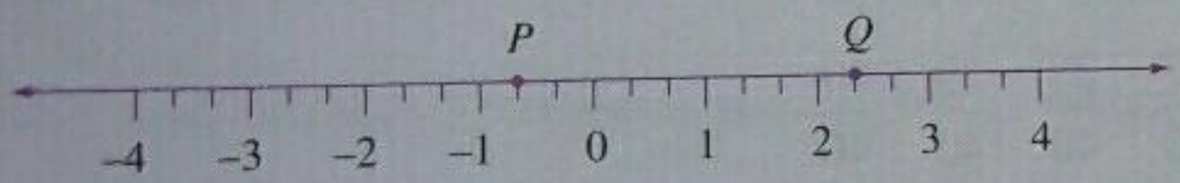
i. 0 ii. $\frac{1}{2}$ iii. $\frac{-1}{2}$ iv. $\frac{-9}{4}$

c. Which one of the following rational numbers lies after Y?



i. $\frac{21}{37}$ ii. $\frac{8}{9}$ iii. $\frac{48}{19}$ iv. $\frac{-5}{6}$

d. Which one of the following rational numbers lies between P and Q?



i. 0 ii. $\frac{21}{5}$ iii. $\frac{-6}{4}$ iv. $\frac{15}{4}$

2. Represent the following rational numbers on the number line.

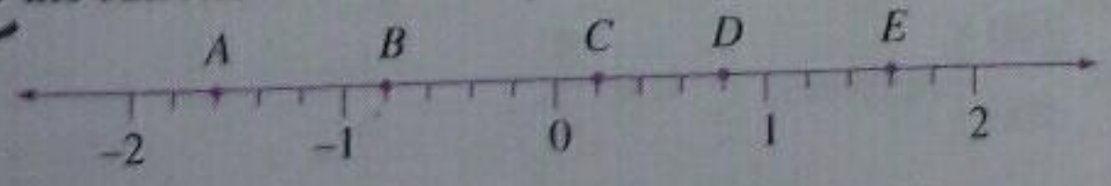
a. $\frac{-3}{7}$ b. $\frac{0}{6}$ c. $\frac{-8}{3}$ d. $\frac{11}{13}$ e. $\frac{7}{5}$ f. $\frac{-5}{8}$ g. $\frac{-2}{3}$ h. $\frac{4}{5}$ i. $\frac{-20}{3}$ j. $\frac{3}{4}$

3. Represent the following rational numbers on the same number line.

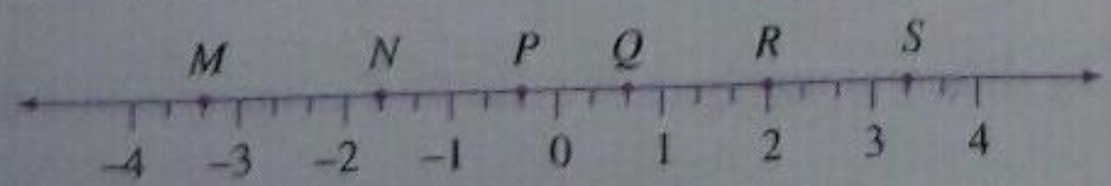
a. $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}$ and $\frac{4}{5}$ b. $\frac{-5}{6}, \frac{-8}{3}, \frac{-3}{2}$ and $\frac{-1}{6}$ c. 0, $\frac{1}{2}, \frac{-5}{3}, \frac{4}{3}$ and $\frac{-7}{6}$ d. $\frac{5}{2}, \frac{2}{5}, \frac{9}{10}, \frac{6}{5}$ and $\frac{7}{2}$

4. Write the rational numbers represented by letters on the following number lines.

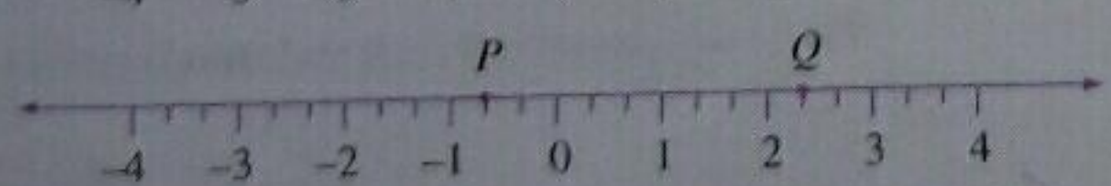
a.



b.



c.



Exercise 1.2

1. a. (iv) $\frac{6}{5}$ b. (iv) $\frac{-9}{4}$ c. (iii) $\frac{48}{19}$ d. (i) 0

4. a. $A = \frac{-8}{5}$, $B = \frac{-4}{5}$, $C = \frac{1}{5}$, $D = \frac{4}{5}$, $E = \frac{8}{5}$

   b. $M = \frac{-10}{3}$, $N = \frac{-5}{3}$, $P = \frac{-1}{3}$, $Q = \frac{2}{3}$, $R = 2$, $S = \frac{10}{3}$

   c. $P = \frac{-2}{3}$, $Q = \frac{7}{3}$