1. Find the equation representing the following number line diagram

$$\frac{0}{1} \quad \frac{1}{14} \quad \frac{1}{7} \quad \frac{3}{14} \quad \frac{2}{7} \quad \frac{5}{14} \quad \frac{3}{7} \quad \frac{1}{2} \quad \frac{4}{7} \quad \frac{9}{14} \quad \frac{5}{7} \quad \frac{11}{14} \quad \frac{6}{7} \quad \frac{13}{14} \quad \frac{1}{1}$$

(i) $\frac{1}{14} - \frac{5}{14} = (\frac{-2}{7})$ (ii) $\frac{1}{14} + \frac{1}{7} = \frac{3}{14}$ (iii) $\frac{1}{7} + \frac{2}{7} = \frac{3}{7}$ (iv) $\frac{3}{14} - \frac{1}{7} = \frac{1}{14}$ (v) $0 + \frac{1}{7} = \frac{1}{7}$

2. Find the difference between the values of numbers at point A and B

$$\frac{0}{1} \quad \frac{1}{13} \quad \frac{2}{13} \quad \frac{3}{13} \quad \frac{4}{13} \quad \frac{5}{13} \quad \frac{6}{13} \quad \frac{7}{13} \quad \frac{8}{13} \quad \frac{9}{13} \quad \frac{10}{13} \quad \frac{11}{13} \quad \frac{12}{13} \quad \frac{1}{1}$$
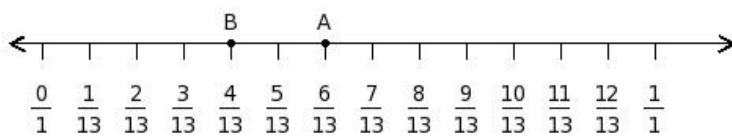
(i) 0   (ii) $\frac{2}{13}$ (iii) $\frac{2}{11}$ (iv) $\frac{2}{15}$ (v) $\frac{4}{13}$

3. Find the position of the rational number $\frac{8}{3}$ on the number line
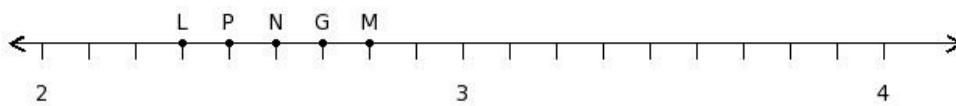
(i) P   (ii) M   (iii) L   (iv) G   (v) N

4. Find the position of the rational number $(\frac{-29}{5})$ on the number line
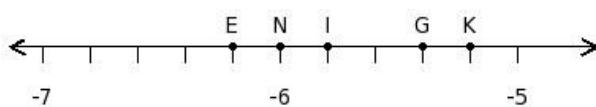

(i) I   (ii) N   (iii) G   (iv) E   (v) K

5. Find the rational number at the point labelled with letter M
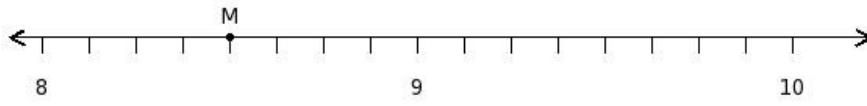
(i) $\frac{15}{2}$ (ii) 17   (iii) $\frac{17}{2}$ (iv) $\frac{17}{4}$ (v) $\frac{19}{2}$

6. Find the rational number at the point labelled with letter R
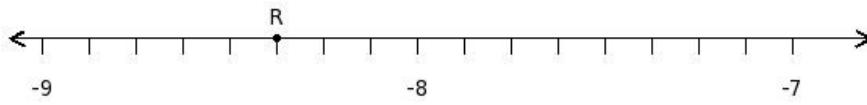
(i) $(\frac{-67}{6})$ (ii) $(\frac{-67}{10})$ (iii) $(\frac{-69}{8})$ (iv) $(\frac{-67}{8})$ (v) $(\frac{-65}{8})$

7. Find the sum of the rational numbers at the points labelled with letters M and N

M .... N (number line from 5 to 7, M at ~5.4, N at ~6)
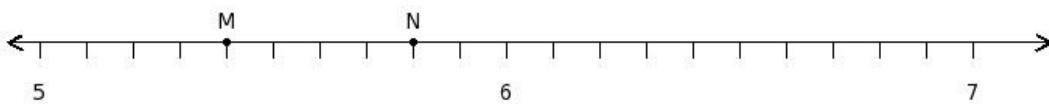
(i) $\dfrac{58}{5}$ (ii) $\dfrac{34}{3}$ (iii) $\dfrac{78}{7}$ (iv) $\dfrac{54}{5}$ (v) $\dfrac{56}{5}$

8. Find the sum of the rational numbers at the points labelled with letters R and S

R .... S (number line from -8 to -6, R at ~-7.2, S at ~-6.6)
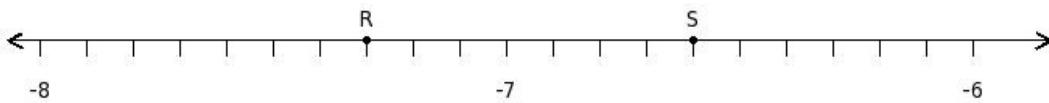
(i) $\left(\dfrac{-113}{8}\right)$ (ii) $\left(\dfrac{-137}{10}\right)$ (iii) $\left(\dfrac{-55}{4}\right)$ (iv) $\left(\dfrac{-139}{10}\right)$ (v) $\left(\dfrac{-141}{10}\right)$

9. Find the difference of the rational numbers at the points labelled with letters P and Q

P .... Q (number line from 7 to 9, P at ~8, Q at ~8.6)
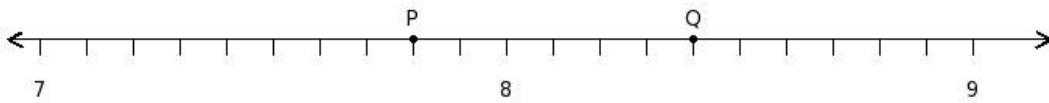
(i) $\left(\dfrac{-1}{5}\right)$ (ii) -1 (iii) $\left(\dfrac{-3}{7}\right)$ (iv) $\left(\dfrac{-3}{5}\right)$

10. Find the difference of the rational numbers at the points labelled with letters E and F

E .... F (number line from -8 to -6, E at ~-7.7, F at ~-7)
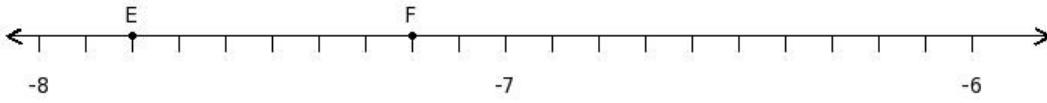
(i) -1 (ii) $\left(\dfrac{-3}{7}\right)$ (iii) $\left(\dfrac{-3}{5}\right)$ (iv) $\left(\dfrac{-1}{5}\right)$

11. Find the product of the rational numbers at the points labelled with letters S and T

S .... T (number line from 1 to 3, S at ~1.5, T at ~2.3)
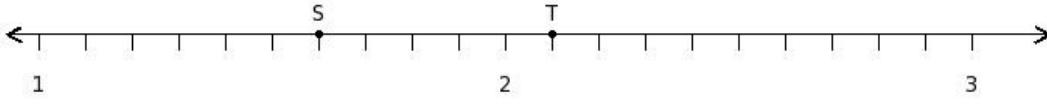
(i) $\dfrac{10}{3}$ (ii) $\dfrac{84}{25}$ (iii) $\dfrac{82}{25}$ (iv) $\dfrac{86}{25}$ (v) $\dfrac{78}{23}$

12. Find the product of the rational numbers at the points labelled with letters S and T

S .... T (number line from -5 to -3, S at ~-4.3, T at ~-4)
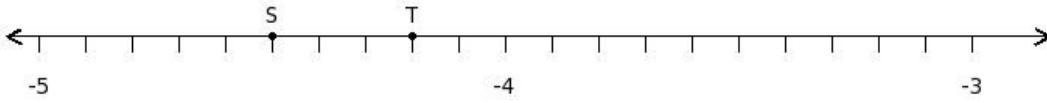
(i) $\dfrac{187}{10}$ (ii) $\dfrac{191}{10}$ (iii) $\dfrac{75}{4}$ (iv) $\dfrac{189}{10}$ (v) $\dfrac{153}{8}$

13. Find the equation representing the following number line diagram

| $\frac{0}{1}$ | $\frac{1}{13}$ | $\frac{2}{13}$ | $\frac{3}{13}$ | $\frac{4}{13}$ | $\frac{5}{13}$ | $\frac{6}{13}$ | $\frac{7}{13}$ | $\frac{8}{13}$ | $\frac{9}{13}$ | $\frac{10}{13}$ | $\frac{11}{13}$ | $\frac{12}{13}$ | $\frac{1}{1}$ |
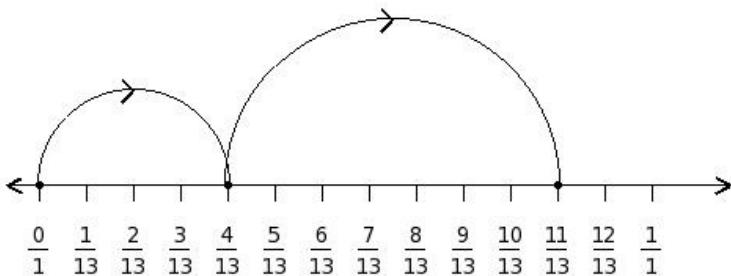
(i) $\frac{5}{13}+\frac{9}{13}=\frac{14}{13}$ (ii) $\frac{3}{13}+\frac{7}{13}=\frac{10}{13}$ (iii) $\frac{4}{13}+\frac{7}{13}=\frac{11}{13}$ (iv) $\frac{4}{13}-\frac{10}{13}=(\frac{-6}{13})$ (v) $\frac{6}{13}-\frac{7}{13}=(\frac{-1}{13})$

14. Find the difference between the values of numbers at point A and B

| $\frac{0}{1}$ | $\frac{1}{14}$ | $\frac{1}{7}$ | $\frac{3}{14}$ | $\frac{2}{7}$ | $\frac{5}{14}$ | $\frac{3}{7}$ | $\frac{1}{2}$ | $\frac{4}{7}$ | $\frac{9}{14}$ | $\frac{5}{7}$ | $\frac{11}{14}$ | $\frac{6}{7}$ | $\frac{13}{14}$ | $\frac{1}{1}$ |
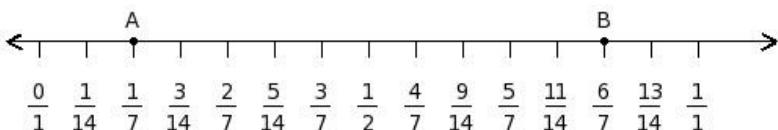
(i) -1 (ii) $(\frac{-3}{7})$ (iii) $(\frac{-5}{9})$ (iv) $(\frac{-5}{7})$

15. Find the position of the rational number $\frac{55}{7}$ on the number line
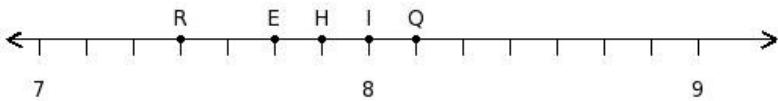


(i) Q (ii) H (iii) I (iv) E (v) R

16. Find the position of the rational number $(\frac{-13}{3})$ on the number line
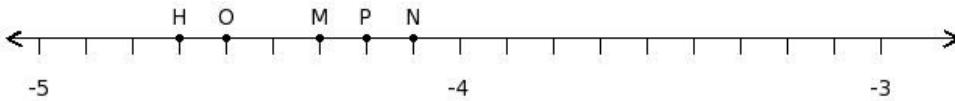
(i) H (ii) P (iii) N (iv) M (v) O

17. Find the rational number at the point labelled with letter I
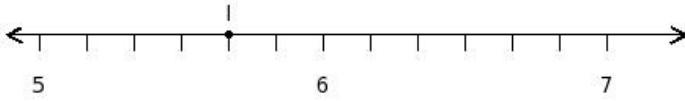
(i) 5 (ii) $\frac{19}{3}$ (iii) $\frac{17}{3}$ (iv) $\frac{17}{5}$ (v) 17

18. Find the rational number at the point labelled with letter K
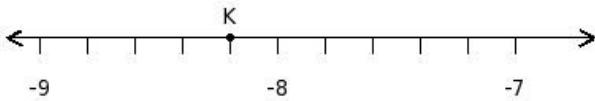
(i) $(\frac{-41}{5})$ (ii) $(\frac{-41}{3})$ (iii) $(\frac{-41}{7})$ (iv) $(\frac{-39}{5})$ (v) $(\frac{-43}{5})$

19. Find the sum of the rational numbers at the points labelled with letters I and J
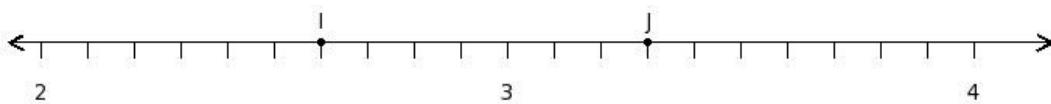

(i) $\dfrac{23}{4}$ (ii) $\dfrac{61}{10}$ (iii) $\dfrac{49}{8}$ (iv) $\dfrac{57}{10}$ (v) $\dfrac{59}{10}$

20. Find the sum of the rational numbers at the points labelled with letters H and I
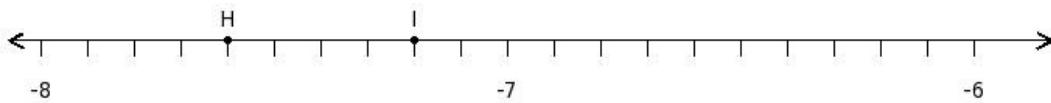
(i) $\left(\dfrac{-102}{7}\right)$ (ii) $\left(\dfrac{-46}{3}\right)$ (iii) $\left(\dfrac{-72}{5}\right)$ (iv) $\left(\dfrac{-74}{5}\right)$ (v) $\left(\dfrac{-76}{5}\right)$

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21. Find the difference of the rational numbers at the points labelled with letters I and J
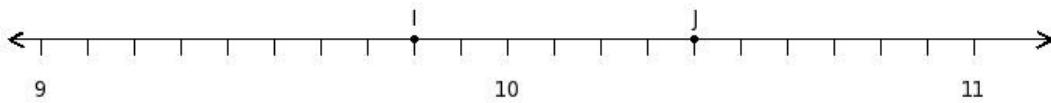

(i) $\left(\dfrac{-3}{7}\right)$ (ii) -1 (iii) $\left(\dfrac{-1}{5}\right)$ (iv) $\left(\dfrac{-3}{5}\right)$

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22. Find the difference of the rational numbers at the points labelled with letters M and N
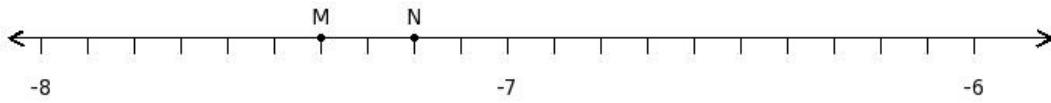
(i) $\dfrac{1}{5}$ (ii) $\left(\dfrac{-3}{5}\right)$ (iii) $\left(\dfrac{-1}{3}\right)$ (iv) $\left(\dfrac{-1}{7}\right)$ (v) $\left(\dfrac{-1}{5}\right)$

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23. Find the product of the rational numbers at the points labelled with letters N and O
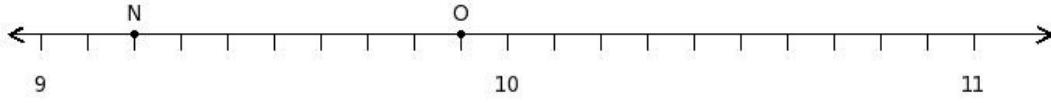
(i) $\dfrac{2095}{23}$ (ii) 91 (iii) $\dfrac{2277}{25}$ (iv) $\dfrac{2279}{25}$ (v) $\dfrac{2459}{27}$

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24. Find the product of the rational numbers at the points labelled with letters E and F
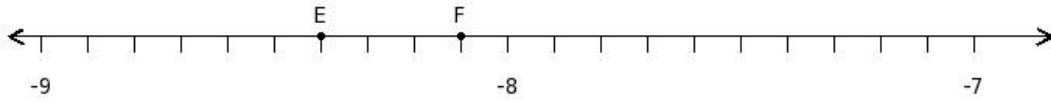
(i) $\dfrac{1565}{23}$ (ii) $\dfrac{1703}{25}$ (iii) $\dfrac{1699}{25}$ (iv) $\dfrac{1837}{27}$ (v) $\dfrac{1701}{25}$

Assignment Key

1) (ii)	2) (ii)	3) (iv)	4) (i)	5) (iii)	6) (iv)
7) (v)	8) (iv)	9) (iv)	10) (iii)	11) (ii)	12) (iv)
13) (iii)	14) (iv)	15) (ii)	16) (iv)	17) (iii)	18) (i)
19) (v)	20) (iv)	21) (iv)	22) (v)	23) (iii)	24) (v)