MATHS

NCERT - NCERT Maths(Hinglish)

RATIONAL NUMBERS

Exercise 1 2

1. Find ten rational numbers between $\dfrac{-2}{5}$ and $\dfrac{1}{2}$.
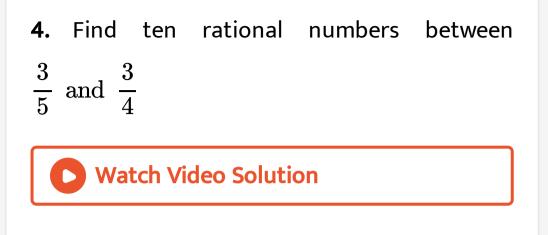
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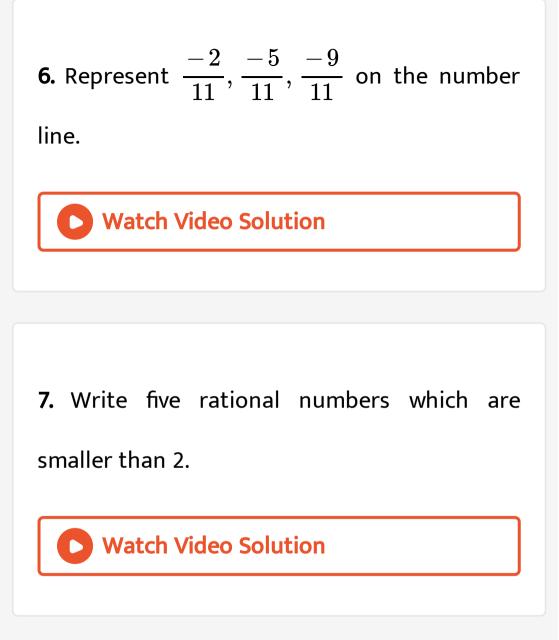
2. Find five rational numbers between. (i) $\dfrac{2}{3}$ and $\dfrac{4}{5}$ (ii) $\dfrac{-3}{2}$ and $\dfrac{5}{3}$ (iii) $\dfrac{1}{4}$ and $\dfrac{1}{2}$

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3. Write five rational numbers greater than 2.

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4. Find ten rational numbers between $\dfrac{3}{5}$ and $\dfrac{3}{4}$

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5. Represent these numbers on the number line. (i) $\dfrac{7}{4}$ (ii) $\dfrac{-5}{6}$

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6. Represent $\dfrac{-2}{11}, \dfrac{-5}{11}, \dfrac{-9}{11}$ on the number line.

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7. Write five rational numbers which are smaller than 2.

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Solved Examples

1. Find $\dfrac{-4}{5} \times \dfrac{3}{7} \times \dfrac{15}{16} \times \left(\dfrac{-14}{9}\right)$

A. $\dfrac{2}{6}$

B. $\dfrac{2}{8}$

C. $\dfrac{2}{10}$

D. $\dfrac{1}{2}$

Answer: D

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2. Write the additive inverse of the following:

(i) $\dfrac{-7}{19}$ (ii) $\dfrac{21}{112}$

3. Verify that $(-x)$ is the as x for (i) $x = \dfrac{13}{17}$

(ii) $x = \dfrac{-21}{31}$

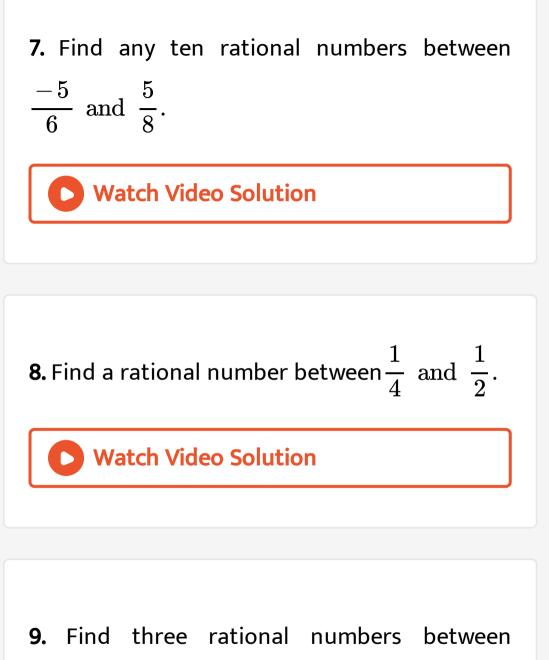**4.** Find $\dfrac{2}{5} \times \dfrac{-3}{7} - \dfrac{1}{14} - \dfrac{3}{7} \times \dfrac{3}{5}$

5. Find $\dfrac{3}{7} + \left(\dfrac{-6}{11}\right) + \left(\dfrac{-8}{21}\right) + \left(\dfrac{5}{22}\right)$

6. Write any 3 rational numbers between and 0.

7. Find any ten rational numbers between $\dfrac{-5}{6}$ and $\dfrac{5}{8}$.

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8. Find a rational number between $\dfrac{1}{4}$ and $\dfrac{1}{2}$.

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9. Find three rational numbers between $\dfrac{1}{4}$ and $\dfrac{1}{2}$.

Exercise 1 1

1. Multiply $\dfrac{6}{13}$ by the reciprocal of $\dfrac{-7}{16}$.

A. $-\dfrac{96}{91}$

B. $-\dfrac{34}{91}$

C. $\dfrac{96}{91}$

D. $\dfrac{34}{91}$

Answer: A

2. Write.(i) The rational number that does not have a reciprocal.(ii) The rational numbers that are equal to their reciprocals.(iii) The rational number that is equal to its negative.

3. Fill in the blanks. (i) Zero has reciprocal. (ii) The numbers and are their own reciprocals (iii)

The reciprocal of (-5) is. (iv) Reciprocal of $\frac{1}{x}$, where $x \neq 0$ is. (v) The product of two rational numbers is always a. (vi) The reciprocal of a positive rational number is.

4. Using appropriate properties find.

(i) $-\frac{2}{3} \times \frac{3}{5} + \frac{5}{2} - \frac{3}{5} \times \frac{1}{6}$

(ii) $\frac{2}{5} \times \left(-\frac{3}{7}\right) - \frac{1}{6} \times \frac{3}{2} + \frac{1}{14} \times \frac{2}{5}$

5. Name the property under multiplication used in each of the following.

(i) $\dfrac{-4}{5} \times 1 = 1 \times \dfrac{-4}{5}$

(ii) $\dfrac{13}{17} \times \dfrac{-2}{7} = \dfrac{-2}{7} \times \dfrac{-13}{17}$

(iii) $\dfrac{-19}{29} \times \dfrac{29}{-19} = 1$

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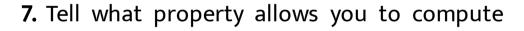
6. Find the multiplicative inverse of the following.
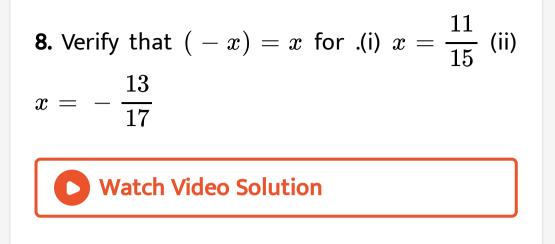
(i) -13

(ii) $\dfrac{-13}{19}$

(iii) $\dfrac{1}{5}$

(iv) $\dfrac{-5}{8} \times \dfrac{-3}{7}$

(v) $-1 \times \dfrac{-2}{5}$

(vi) -1

7. Tell what property allows you to compute

$\dfrac{1}{3} \times \left(6 \times \dfrac{4}{5} \right) as \left(\dfrac{1}{3} \times 6 \right) \times \dfrac{4}{3}.$

8. Verify that $(-x) = x$ for .(i) $x = \dfrac{11}{15}$ (ii) $x = -\dfrac{13}{17}$

9. Write the additive inverse of each of the following. (i) $\dfrac{2}{8}$ (ii) $\dfrac{-5}{9}$ (iii) $\dfrac{-6}{-5}$ (iv) $\dfrac{2}{-9}$ (v) $\dfrac{19}{-6}$

10. Is 0.3 the multiplicative inverse of $3\frac{1}{3}$?

Why or why not?

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11. Is $\frac{8}{9}$ the multiplicative inverse of $-1\frac{1}{8}$?

Why or Why Not?

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