



# MATHS

## BOOKS - PSEB

### RATIONAL NUMBERS

#### Example

1. Is the number  $\frac{2}{-3}$  rational? Think about it.



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2. List ten rational numbers.



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3. Is 5 a positive rational number?



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4. List five more positive rational number?



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5. Is -8 a negative rational number?



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6. List five more negative rational number.



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7. Which of these are negative rational numbers?

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



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8. Which of these are negative rational numbers?

$$\frac{5}{7}$$



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9. Which of these are negative rational numbers?

$$\frac{3}{-5}$$





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10. Which of these are negative rational numbers?

0



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11. Which of these are negative rational numbers?

$\frac{6}{11}$



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12. Which of these are negative rational numbers?

$$-\frac{2}{-9}$$



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13. Reduce  $-\frac{45}{30}$  to the standard form.



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14. Reduce to standard form:

$$\frac{36}{-24}$$



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15. Reduce to standard form:

$$\frac{3}{-15}$$



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**16.** Find the standard form of

$$-\frac{18}{45}$$



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**17.** Find the standard form of

$$-\frac{12}{18}$$



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**18.** Do  $\frac{4}{-9}$  and  $-\frac{16}{36}$  represent the same rational number?



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**19.** List three rational numbers between  $-2$  and  $-1$ .



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**20.** Write four more numbers in the following pattern:

$$-\frac{1}{3}, -\frac{2}{6}, -\frac{3}{9}, -\frac{4}{12}, \dots$$



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**21.** List five rational numbers between:

-1 and 0



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**22.** List five rational numbers between:

-2 and -1



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**23.** List five rational numbers between:

$-\frac{4}{5}$  and  $-\frac{2}{3}$



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**24.** List five rational numbers between:

$$-\frac{1}{2} \text{ and } \frac{2}{3}$$



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**25.** Write four more rational numbers in each of the following patterns:

$$-\frac{3}{5}, -\frac{6}{10}, -\frac{9}{15}, -\frac{12}{20}, \dots$$



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**26.** Write four more rational numbers in each of the following patterns:

$$-\frac{1}{4}, -\frac{2}{8}, -\frac{3}{12}, \dots$$



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**27.** Write four more rational numbers in each of the following patterns:

$$-\frac{1}{6}, \frac{2}{-12}, \frac{3}{-18}, \frac{4}{-24}, \dots$$



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**28.** Write four more rational numbers in each of the following patterns:

$$-\frac{2}{3}, \frac{2}{-3}, \frac{4}{-6}, \frac{6}{-9}, \dots$$



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**29.** Give four rational numbers equivalent to:

$$-\frac{2}{7}$$



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**30.** Give four rational numbers equivalent to:

$$\frac{5}{-3}$$



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**31.** Give four rational numbers equivalent to:

$$\frac{4}{9}$$



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**32.** Draw the number line and represent the following rational numbers on it:

$$\frac{3}{4}$$



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**33.** Draw the number line and represent the following rational numbers on it:

$$-\frac{5}{8}$$



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**34.** Draw the number line and represent the following rational numbers on it:

$$-\frac{7}{4}$$



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**35.** Draw the number line and represent the following rational numbers on it:

$$\frac{7}{8}$$



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**36.** Which of the following pairs represent the same rational number?

$$-\frac{7}{21} \text{ and } \frac{3}{9}$$



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**37.** Which of the following pairs represent the same rational number?

$$-\frac{16}{20} \text{ and } \frac{20}{-25}$$



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**38.** Which of the following pairs represent the same rational number?

$$-\frac{2}{-3} \text{ and } \frac{2}{3}$$



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**39.** Which of the following pairs represent the same rational number?

$$-\frac{3}{5} \text{ and } -\frac{12}{20}$$



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40. Which of the following pairs represent the same rational number?

$$\frac{8}{-5} \text{ and } -\frac{24}{15}$$



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41. Which of the following pairs represent the same rational number?

$$\frac{1}{3} \text{ and } -\frac{1}{9}$$



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**42.** Which of the following pairs represent the same rational number?

$$-\frac{5}{-9} \text{ and } \frac{5}{-9}$$



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**43.** Rewrite the following rational numbers in the simplest form:

$$-\frac{8}{6}$$



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**44.** Rewrite the following rational numbers in the simplest form:

$$\frac{25}{45}$$



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**45.** Rewrite the following rational numbers in the simplest form:

$$-\frac{44}{72}$$



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**46.** Rewrite the following rational numbers in the simplest form:

$$-\frac{8}{10}$$



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**47.** Fill in the boxes with the correct symbol out of  $>$ ,  $<$ , and  $=$ .

$$-\frac{5}{7} \square \frac{2}{3}$$



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**48.** Fill in the boxes with the correct symbol out of  $>$ ,  $<$ , and  $=$ .

$$-\frac{4}{5} \square -\frac{5}{7}$$



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**49.** Fill in the boxes with the correct symbol out of  $>$ ,  $<$ , and  $=$ .

$$-\frac{7}{8} \square \frac{14}{-16}$$



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50. Fill in the boxes with the correct symbol out of  $>$ ,  $<$ , and  $=$ .

$$-\frac{8}{5} \square -\frac{7}{4}$$



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51. Fill in the boxes with the correct symbol out of  $>$ ,  $<$ , and  $=$ .

$$\frac{1}{-3} \square -\frac{1}{4}$$



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52. Fill in the boxes with the correct symbol out of  $>$ ,  $<$ , and  $=$ .

$$\frac{5}{-11} \square - \frac{5}{11}$$



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53. Fill in the boxes with the correct symbol out of  $>$ ,  $<$ , and  $=$ .

$$0 \square - \frac{7}{6}$$



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54. Which is greater in each of the following:

$$\frac{2}{3}, \frac{5}{2}$$



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55. Which is greater in each of the following:

$$-\frac{5}{6}, -\frac{4}{3}$$



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56. Which is greater in each of the following:

$$-\frac{3}{4}, \frac{2}{-3}$$



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57. Which is greater in each of the following:

$$-\frac{1}{4}, \frac{1}{4}$$



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58. Which is greater in each of the following:

$$-3\frac{2}{7}, -3\frac{4}{5}$$



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59. Write the following rational numbers in ascending order:

$$-\frac{3}{5}, -\frac{2}{5}, -\frac{1}{5}$$



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60. Write the following rational numbers in ascending order:

$$\frac{1}{3}, -\frac{2}{9}, -\frac{4}{3}$$



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**61.** Write the following rational numbers in ascending order:

$$-\frac{3}{7}, -\frac{3}{2}, -\frac{3}{4}$$



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**62.** Find:  $-\frac{13}{7} + \frac{6}{7}, \frac{19}{5} + \left(-\frac{7}{5}\right)$



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**63.** What will be the additive inverse of

$$-\frac{3}{9}?, -\frac{9}{11}?, \frac{5}{7}?$$



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64. Satpal walks  $\frac{2}{3}$  km from a place P, towards east and then from there  $1\frac{5}{7}$  km towards west. Where will he be now from P?



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65. Find:

$$\frac{7}{9} - \frac{2}{5}$$



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**66.** Find:

$$2\frac{1}{5} - \frac{-1}{3}$$



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**67.** What will be

$$-\frac{3}{5} \times 7?$$



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**68.** What will be

$$-\frac{6}{5} \times (-2)?$$



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**69.** Find:

$$-\frac{3}{7} \times \frac{1}{7}$$



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70. Find:

$$\frac{2}{3} \times -\frac{5}{9}$$



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71. What will be the reciprocal of  $-\frac{6}{11}$ ? and  $-\frac{8}{5}$ ?



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**72.** Find:

$$\frac{2}{3} \times -\frac{7}{8}$$



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**73.** Find:

$$-\frac{6}{7} \times \frac{5}{7}$$



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**74.** Find the sum:

$$\frac{5}{4} + \left( \frac{-11}{4} \right)$$



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**75.** Find the sum:

$$\frac{5}{3} + \frac{3}{5}$$



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**76.** Find the sum:

$$-\frac{9}{10} + \frac{22}{15}$$



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**77.** Find the sum:

$$-\frac{3}{-11} + \frac{5}{9}$$



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**78.** Find the sum:

$$-\frac{8}{19} + \frac{-2}{57}$$



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**79.** Find the sum:

$$-\frac{2}{3} + 0$$



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**80.** Find the sum:

$$-2\frac{1}{3} + 4\frac{3}{5}$$



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**81.** Find

$$\frac{7}{24} - \frac{17}{36}$$



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**82.** Find

$$\frac{7}{24} - \frac{17}{36}$$



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**83.** Find

$$\frac{5}{63} - \left( \frac{-6}{21} \right)$$



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**84.** Find

$$-\frac{6}{13} - \left(\frac{-7}{15}\right)$$



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**85.** Find

$$-\frac{3}{8} - \frac{7}{11}$$



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**86.** Find

$$-2\frac{1}{9} - 6$$



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**87.** Find the product:

$$\frac{9}{2} \times \left( \frac{-7}{4} \right)$$



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**88.** Find the product:

$$\frac{3}{10} \times (-9)$$



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**89.** Find the product:

$$\frac{-6}{5} \times \frac{9}{11}$$



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**90.** Find the product:

$$\frac{3}{7} \times \left( \frac{-2}{5} \right)$$



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**91.** Find the product:

$$\frac{3}{11} \times \frac{2}{5}$$



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**92.** Find the product:

$$\frac{3}{-5} \times \frac{-5}{3}$$



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**93.** Find the value of:

$$(-4) \div \frac{2}{3}$$



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**94.** Find the value of:

$$\frac{-3}{5} \div 2$$



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**95.** Find the value of:

$$\frac{-4}{5} \div (-3)$$



**Watch Video Solution**

**96.** Find the value of:

$$\frac{-1}{8} \div \frac{3}{4}$$



**Watch Video Solution**

**97.** Find the value of:

$$\frac{-2}{13} \div \frac{1}{7}$$



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**98.** Find the value of:

$$\frac{-7}{12} \div \left( \frac{-2}{13} \right)$$



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**99.** Find the value of:

$$\frac{3}{13} \div \left( \frac{-4}{65} \right)$$



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