

Rational Numbers Question Answers Test-1

Subjective Test

Question 1 (1.0 marks)

Are rational numbers closed under division? Give reasons in support of your answer.

Question 2 (1.0 marks)

Fill in the blanks:

(a) The reciprocal of the rational number $\frac{a}{b}, (a, b \neq 0)$ is _____. ($\frac{1}{2}$ mark)

(b) The rational number _____ has no multiplicative inverse. ($\frac{1}{2}$ mark)

Question 3 (1.0 marks)

Is $-1\frac{29}{71}$ the multiplicative inverse of 0.71? Give reason in support of your answer.

Question 4 (1.0 marks)

Name the property under multiplication used in the expression $\left(-\frac{3}{4} \times \frac{6}{7}\right) \times \frac{2}{9} = -\frac{3}{4} \times \left(\frac{6}{7} \times \frac{2}{9}\right)$

Question 5 (1.0 marks)

Using property of multiplication, find the value of the expression $\frac{3}{5} \times \frac{3}{14} \times \frac{15}{2} \times -\frac{7}{9}$

Question 6 (2.0 marks)

(a) Define a rational number. (1 mark)

(b) Are rational numbers closed under subtraction? Give reasons. (1 mark)

Question 7 (2.0 marks)

Find the additive inverse of the multiplicative inverse of the expression $\left(-\frac{3}{5}\right) \times (-10)$

Question 8 (3.0 marks)

Find seven rational numbers between -1 and 1 and represent them on the number line.

Question 9 (3.0 marks)

(a) State distributive property of multiplication over addition and subtraction for rational numbers. (1 mark)

(b) Using the property under multiplication, simplify the expression $\frac{5}{9} \times \frac{5}{2} - \frac{3}{2} \times \frac{5}{9} + \frac{5}{18}$ (2 marks)

Question 10 (6.0 marks)

(a) Find eight rational numbers between $-\frac{7}{5}$ and $\frac{3}{4}$. (2 marks)

(b) Find four rational numbers between $\frac{1}{9}$ and $\frac{1}{3}$. (2 marks)

(c) How many rational numbers are there between 3 and 4? Write any two of them. (2 marks)