

DELHI PUBLIC SCHOOL, JAMMU

SESSION 2024-25

Assignment -1

Class: VIII

Topic: Rational Numbers, Exponents and Powers

Read carefully and answer the following questions.

Subject: Maths

MM: 20

Q1: Find which is not a rational number. (1)

- (a) 0.6 (b) -3 (c) 0 (d) $\frac{10}{0}$

Q2: The sum of two numbers is $\frac{-5}{3}$. If one of the numbers is -4 , what is the other number? (1)

- (a) $\frac{-7}{3}$. (b) $\frac{5}{3}$ (c) $\frac{7}{3}$ (d) $\frac{-17}{3}$

Q3: For any two rational numbers x and y , $x^{-3} \times y^{-3}$ is equal to (1)

- (a) $(x \times y)^0$ (b) $(x \times y)^{-3}$ (c) $(x \times y)^{-6}$ (d) $(x \times y)^1$

Q4: Find three rational numbers between $\frac{-1}{3}$ and $\frac{1}{2}$. (2)

Q5: Simplify and express in exponential form: $\left\{ \left(\frac{1}{3}\right)^{-2} - \left(\frac{1}{2}\right)^{-3} \right\} \div \left(\frac{1}{4}\right)^{-2}$ (2)

Q6: Find using distributivity: $\left\{ \frac{9}{16} \times \frac{4}{12} \right\} + \left\{ \frac{9}{16} \times \frac{-3}{9} \right\}$ (3)

Q7: Simplify: $\left(\frac{7}{2} \times \frac{5}{3} \right) + \left(\frac{1}{6} \times \frac{3}{2} \right) - \left(\frac{12}{8} \times \frac{4}{3} \right)$ (3)

Q8: By what number should we divide $\frac{-63}{15}$ to get -3 ? (3)

Q9: Verify: $x \times (y + z) = (x \times y) + (x \times z)$ if $x = \frac{3}{7}$, $y = \frac{5}{6}$, $z = \frac{-1}{6}$ (4)