



AL KHOZAMA INTERNATIONAL SCHOOL, DAMMAM

B.E.S.T. Group of Schools, K.S.A.

Affiliated to CBSE – New Delhi, Affiliation No. 5730008

WORKSHEET-I

ANNUAL EXAMINATION (2020-2021)

Grade -7

Subject: Mathematics

BLOCK-19 :Introduction to Rational Numbers

1. Fill in the blanks

- a) The negative of a negative rational number is -----.
- b) Denominator of a rational number can be any integer other than -----
- c) Multiplicative inverse of $\frac{-7}{16}$ is -----
- d) The standard (simplest) form of $\frac{-20}{76}$ is -----
- e) The additive inverse of $\frac{-7}{20}$ is -----

2. True or False

- a) Every whole number is a rational number.
- b) -10 is a fraction
- c) 0 is a whole number but it is not a rational number.
- d) All integers are rational numbers.
- e) All decimal numbers can be represented as rational numbers.

3. Find the absolute value of $\frac{8}{5}$.

4. Give the $\frac{p}{q}$ form for the following numbers:

- a) 3 out of 7
- b) 3: 8

5. Represent $\frac{1}{7}$, $-\frac{2}{7}$, $-\frac{1}{7}$ on a number line.

6. Reduce the numbers to their standard forms:

a) $\frac{12}{18}$

b) $\frac{90}{-45}$

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

7. List three rational numbers between $\frac{1}{3}$ and $\frac{3}{4}$

8. Find five rational numbers between

a) $-\frac{2}{8}$ and $-\frac{2}{18}$

b) -1 and 0

c) -3 and -2

9. Find one equivalent rational number for $-\frac{1}{5}$

10. Compare $-\frac{1}{3}$ and $-\frac{1}{4}$

11. Arrange the numbers in ascending and descending order?

$-\frac{4}{8}, -\frac{1}{4}, \frac{3}{5}, \frac{4}{11}$

12. Fill in the box

a) $-\frac{4}{5}$ ----- $-\frac{5}{7}$

b) $-\frac{7}{8}$ ----- $-\frac{14}{16}$

13. Write four more rational numbers in the pattern below

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

14. List ten integers between 155 and -155.

BLOCK 20: Adding & Subtracting Rational Numbers

15. Add $\frac{1}{3} + \frac{2}{3}$ using number line.

16. Find the additive inverse of $\frac{64}{56}$

17. The sum of $-\frac{3}{2}$ and $\frac{1}{2}$ is -----

18. Add the following.

a) $\frac{-13}{14}$ and $\frac{5}{14}$ b. $\frac{-13}{9}$ and $\frac{9}{21}$

19. Subtract $\frac{12}{18}$ from $\frac{11}{18}$

20. Subtract $\frac{-15}{50}$ from $\frac{-5}{16}$

21. What should be added to $\frac{-24}{6}$ to get $\frac{-5}{8}$?

22. Solve the following

a) $\frac{34}{8} + -\frac{39}{18}$ b) $\frac{16}{-20} - \frac{15}{19}$

23. If $\frac{3}{5}$ of a number exceeds its $\frac{2}{7}$ by 44, find the number.

24. After reading $\frac{7}{9}$ of a book, 40 pages are left. How many are there in the book?

25. The sum of two rational numbers is $-\frac{3}{5}$. if one of them is $-\frac{9}{10}$. Find the other ?

26. The wheat bag is $\frac{3}{8}$ kg. If the bag weighs $\frac{1}{4}$ kg. What is the weight of the wheat?

27. At a cricket test match $\frac{2}{7}$ of the spectators were in a covered place while 15000 were in open. Find the total number of spectators.

28. A scuba diver located at $\frac{3}{7}$ below the sea level. He further descends by $\frac{14}{8}$ m. What is his new position?

BLOCK 21: Multiplying & Dividing Rational Numbers

29. Multiply $-\frac{4}{3} \times 2$ using number line.

30. The product of a rational number with its reciprocal is always-----

31. Multiply:

a) $-\frac{8}{2} \times 12$

b) $\frac{15}{19} \times \frac{12}{5}$

c) $\frac{-52}{21} \times \frac{-49}{26}$
 d) $\frac{-19}{61} \times 6\frac{1}{10}$

32. The multiplicative inverse of $-\frac{45}{11}$ is-----

33.

Divide:

a) $\frac{12}{18} \div \frac{2}{9}$ b) $6 \div \frac{2}{3}$ c) $-1\frac{98}{52} \div -2\frac{8}{46}$

34. A twine is 10 inch long. How many pieces can the rope be cut in to if each piece is $\frac{2}{3}$ of an inch?

35. The product of two numbers is -8. If one of them is -12, find the other.

36. How many packets of capacity $\frac{5}{6}$ liters required for filling $\frac{245}{45}$ liters of milk?

37. When a number is divided by $\frac{-5}{16}$, the answer is $\frac{-15}{32}$. What is the number?

38. A man walk $\frac{3}{4}$ of a km on foot at a speed of 3 km/h and $\frac{4}{3}$ of a km on a scooter at a speed of 20 km/h. What is the total time he travelled?

39. A coffee machine dispenses coffee at $\frac{4}{5}$ litre/hour. There are 11 people at a party and everyone has one cup of coffee and each cup has a capacity of $\frac{2}{20}$ litres, how many hrs a coffee machine take to serve everyone?

40. Anu had ₹300. She spent $\frac{1}{3}$ of her money on note books and $\frac{1}{4}$ of the remainder on stationery items. How much money is left with her?

Block 28 : Laws of Exponents

41. Write 144 in exponential form .

42. $(9^2 + 5^3 + 23)^0 = \text{-----}$

43. $x^3 \times x^5 = \text{-----}$

44. Simplify:

a. $(-3)^3 \times (-2)^4$

b. $4^5 \times 4^3 \times 4^4$

c. $(5^5)^5$

d. $15 + 65^0 + 97^0$

45. Express in exponential form:

a. $\frac{27}{125}$

b. $\frac{10000}{16}$

46. Simplify:

$$((7^5)^2) \times 7^4 \div 7^8$$

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