

# NEW AL WUROOD INTERNATIONAL SCHOOL, JEDDAH,

Affiliated to CBSE – New Delhi, Affiliation No. 5730008



## WORKSHEET-I

Grade -7ANNUAL EXAMINATION (2020-2021)

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

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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