

Classroom Based Assessment - 1 (2022-23)

UDISE Code: _____	Class-Subject: 8-Maths
Child ID: _____	No. of Questions: 19
Child Name: _____	Duration: 60 minutes

Section A: Multiple Choice Questions - Each question has 4 options out of which ONLY ONE option is correct. (15 x 1M = 15M)

1 Which of these are rational numbers?

$37, \frac{36.29}{2}, 25.49, \frac{-37}{69}$

- A** only $\frac{-37}{69}$
- B** only $\frac{-37}{69}$ and $\frac{36.29}{2}$
- C** only $37, \frac{-37}{69}$ and $\frac{36.29}{2}$
- D** all of them

2 p and q are any two rational numbers and $@$ is an operation such that -

$p @ q$ is NOT EQUAL to $q @ p$.

Which of these could be the operation $@$?

- A** either addition or multiplication
- B** either multiplication or division
- C** either subtraction or division
- D** ($@$ cannot be addition, subtraction, multiplication or division as $p @ q$ is always equal to $q @ p$.)

3 Which of the following numbers lies between the two numbers marked on the number line below?



- A** $-\frac{8}{7}$
- B** $-\frac{7}{8}$
- C** - 7.8
- D** - 8.7

4 Which number when multiplied with $2\frac{1}{5}$ will result in 1?

A $\frac{5}{1}$

B $\frac{5}{2}$

C $\frac{5}{11}$

D $\frac{5}{21}$

5 Which of the following statements is TRUE?

A $3 \div \frac{1}{3} = \frac{1}{3} \div 3$

B $(3 \div \frac{1}{3}) \div 3 = 3 \div (\frac{1}{3} \div 3)$

C $3 \div (3 + 3) = (3 \div 3) + (3 \div 3)$

D $(3 - \frac{1}{3}) \div 3 = (3 \div 3) - (\frac{1}{3} \div 3)$

6 A rational number is one which can be written in the form $\frac{x}{y}$ where x and y are integers and y is not zero. For example -2.5 is rational number as it can be written as $-\frac{5}{2}$.

Which of these is NOT a rational number?

A 2.353535....

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

C $\frac{3}{0}$

D 0

7 Which of the following rational numbers has a recurring decimal expansion?

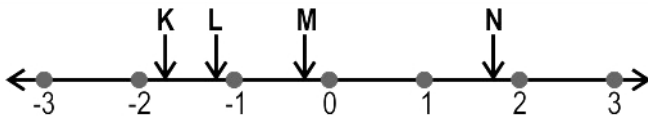
A $\frac{6}{15}$

B $\frac{12}{18}$

C $\frac{23}{25}$

D $\frac{123}{400}$

8 Which of the following points represents $-1\frac{2}{3}$ on a number line?

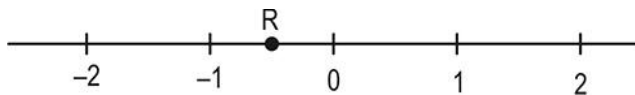


- A** K
- B** L
- C** M
- D** N

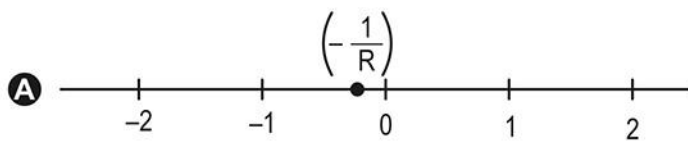
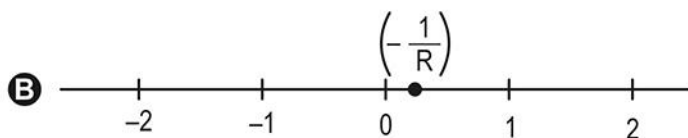
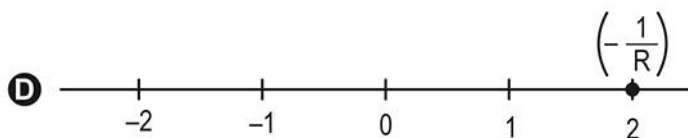
9 In which of the following cases will the sum of p and q be greater than the product of p and q?

- A** when p and q are both negative numbers
- B** when p and q both lie between 0 and 1
- C** when p and q both lie between 1 and 10
- D** it is not possible for any value of p and q.

- 10** A rational number R is marked on the number line shown below.



Which of the following number lines shows the approximate location of $(-\frac{1}{R})$?



- A** A
B B
C C
D D

- 11** Ritu , Tarun and Imran did the following operations on $-\frac{12}{55}$ and $\frac{15}{31}$.

Ritu : $-\frac{12}{55} + \frac{15}{31}$

Tarun : $-\frac{12}{55} \times \frac{15}{31}$

Imran : $-\frac{12}{55} \div \frac{15}{31}$

Who will get a rational number?

- A** only Ritu
B only Ritu and Tarun
C all- Ritu, Tarun and Imran
D none of Ritu, Tarun and Imran

12 How many rational numbers are there between $\frac{62}{79}$ and $\frac{64}{79}$?

- A** 1
- B** 79
- C** 100
- D** infinitely many

13 p and q are two rational numbers such that their product is -2.

If p is $-\frac{4}{7}$, what is $\frac{p}{q}$?

- A** $\frac{8}{7}$
- B** $\frac{7}{2}$
- C** $-\frac{2}{7}$
- D** $-\frac{8}{49}$

14 How many pieces of rope, each measuring $3\frac{3}{4}$ metres, can be cut from a 30 metres long rope?

- A** 6
- B** 8
- C** 10
- D** 12

15 Which one of the following is the rational number lying between $\frac{6}{7}$ and $\frac{7}{8}$?

- A** $\frac{94}{112}$
- B** $\frac{95}{112}$
- C** $\frac{97}{112}$
- D** $\frac{99}{112}$

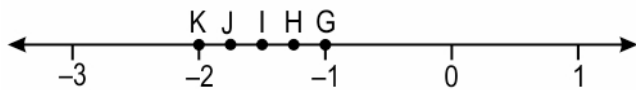
Section B: Answer the following questions in your answer sheets. (3 x 1M = 3M)

16 The following relation is used to illustrate the property of multiplicative identity. A and B are numbers.

$$\frac{1}{4} \times A = B$$

What is the value of A and B?

- 17** Observe the number line below. It is given that $GH = HI = IJ = JK$.



What is the rational number represented by point J?

- 18** Which of the two numbers is greater?

$$\frac{-4}{-5} \text{ or } \frac{-5}{8}$$

Section C: Answer the following question in your answer sheet. (1 x 2M = 2M)

- 19** Use suitable properties of operations and simplify:

$$\frac{2}{9} \times \left(-\frac{5}{12}\right) - \frac{5}{12} \times \frac{4}{9}$$

Show your steps.

	Class: 8 Subject: Mathematics
Question Number	Answer Key
1	D
2	C
3	C
4	C
5	D
6	C
7	B
8	A
9	B
10	D
11	C
12	D
13	D
14	B
15	C
16	Award 1 mark if the student - Writes the value of A as 1 and Writes the value of B as $\frac{1}{4}$ or A is 4 and B is 1 Award 0.5 marks if answer to either A or B is correct Any other answer 0
17	Award 1 mark if the student writes the rational number represented by point J as $-\frac{7}{4}$ or $-1\frac{3}{4}$ Any other answer 0
18	Award 1 mark if student answers $(-\frac{4}{5})$ Any other answer 0
19	Award 2 marks: Step 1 (1 mark): Uses the distributive property and rewrites the above expression as follows: $-\frac{5}{12} \{(\frac{2}{9}) + (\frac{4}{9})\}$, Step 2 (1/2 mark): Simplifies the above expression as $(\frac{5}{12}) \times \{(\frac{6}{9})\}$, Step 3 (1/2 mark): Simplifies the expression $(-\frac{5}{18})$. Award 1.5 marks if either skips step 2 or 3, Award 1 mark if (i)either skips step 1 or both steps 2 and 3 OR (ii) Skips step 1 and either steps 2 or 3 Any other answer 0