KENDRIYA VIDYALAYA SANGATHAN
HYDERABAD REGION
COMMON FORMATIVE ASSESSMENT – I

Class: VIII
Sub: MATHEMATICS

Instructions:

All questions are compulsory. Section A contains 5 questions of 1 mark each, Section B contains 4 questions of 2 marks each, Section C contains 5 questions of 3 marks each and Section D contains 3 questions of 4 marks each.

SECTION – A

1. The additive inverse of the \(-\frac{7}{19}\) is ______
   (a) \(\frac{19}{7}\)  (b) \(\frac{7}{19}\)  (c) \(-\frac{7}{19}\)  (d) 0

2. The product of \(\frac{6}{13}\) and the reciprocal of \(-\frac{7}{16}\) is ___
   (a) \(-\frac{96}{91}\)  (b) \(\frac{96}{91}\)  (c) \(\frac{91}{96}\)  (d) \(-\frac{42}{16}\)

3. The solution of \(\frac{3}{7} + x = \frac{17}{7}\) is ______
   (a) \(x = 14\)  (b) \(x = 2\)  (c) \(x = 10\)  (d) \(x = 4\)

4. RICE is a Rhombus. The value of \(x\) in the figure is ______
   (a) 5      (b) 12      (c) 13      (d) 10

5. The name of the regular polygon of four sides is _________
   (a) Triangle  (b) Square  (c) Rectangle  (d) parallelogram

SECTION – B

6. Find 3 rational numbers between \(\frac{1}{4}\) and \(\frac{1}{2}\)

7. Solve \(\frac{8x - 3}{3x} = 2\)
8. Find the angle measure $x$ in the following figure.

9. Some of two numbers is 95. If one exceeds the other by 15, find the number.

10. Represent $\frac{-2}{11}, \frac{-5}{11}$ on the number line.
11. The sum of three consecutive multiples of 8 is 888. Find the multiples.
12. The ages of Hari and Harry are in the ratio 5:7. Four years from now the ratio of their ages will be 3:4. Find their present ages.
13. Find $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(-\frac{14}{9}\right)$
14. In a Parallelogram RING, if $\angle R = 70^\circ$, find all the other angles.

SECTION-D

15. Using appropriate properties, find $\frac{2}{5} \times \left(-\frac{3}{7}\right) - \frac{1}{6} \times \frac{3}{2} + \frac{1}{14} \times \frac{2}{5}$
16. Arjun is twice as old as Shriya. Five years ago his age was three times Shriya’s age. Find their present ages.
17. The adjacent figure HOPE is a Parallelogram. Find the angle measures $x$, $y$, and $z$. State the properties used to find them.

Identify all the quadrilaterals that have (a) 4 sides of equal length (b) 4 Right angles and show them with figures.
KENDRIYA VIDYALAYA SANGATHAN  
HYDERABAD REGION  

Class: VIII  
Marks: 40  
Sub: MATHEMATICS  
Duration: 90 Minutes  

SECTION – A  
1. b  
2. a  
3. b  
4. a  
5. b  

SECTION – B  
6. For making denominator same ½ mark  
   For writing 3 rational nos. 1 ½ mark  
7. $8x - 3 = 6x$ cross multiplication ½ mark  
   For correct steps & for correct answer 1 ½ mark  
8. For some of four angles in a quadrilateral is $360^\circ$ ½ mark  
   For correct steps and for finding value of $x$ 1 ½ mark  
9. Forming two numbers --- $x$, $x+15$ 1 mark  
   Finding the numbers 1 mark  

SECTION – C  
10. For drawing number line 1 mark  
    For correct representation 2 marks  

11. If $x$ is a multiple of 8, the next multiples are $x+8$ and $x+16$ 1 mark  
   $X + (x+8) + (x+16) = 888$  
   For solving $x$ ½ mark  
   $X = 288$, $x+8 = 296$, $x+16 = 304$ 1 ½ marks  

12. Let the ages of Hari & Harry are $5x$, $7x$ 1 mark  
   According to the problem, $(5x + 4) ÷ (7x + 4) = \frac{3}{4}$ 1 mark  
   For solving and correct answer 1 mark  

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13. For simplification & correct answer each 1 mark

Answer is $\frac{1}{2}$

14. LR = LN = 70° (Opposite angles of a parallelogram) 1 mark
LR and LI are (supplementary angles) 1 mark
LI = 180° – 70° = 110° 1 mark

SECTION – D

15. For each correct simplification and correct property 1 mark each

16. Let the age of Shriya is x years. ½ mark
Age of Arjun 2 x years 1 mark
ATP. 2x - 5 = 3 (x -5) 1 mark
For finding x and correct answer 1 ½ marks

17. 40° + z = 70° (corresponding angles of parallel lines HE & OP) 1 ½ mark
Z = 30°
Y = 40° (Alternate interior opposite angles of parallel lines HO & EP) 1 mark
Linear pair 180° – 70° = 110° ½ mark
Therefore x = 110° (Opp. Angles of parallelogram are equal) 1 mark

(OR)
Ans: Square and Rhombus including figures 2 marks
Square and Rectangle including figures 2 marks