

KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION

FORMATIVE ASSESSMENT – 1(MODEL PAPER)

CLASS :- VII

Max. marks :- 40

SUBJECT :- Mathematics

Time :- 90 min

BLUE PRINT

S.No	Name of the lesson	1 mark	2 marks	3 marks	4 marks	TOTAL
1	Integers	1(1)	2(4)	1(3)	--	4(8)
2	Lines and angles	2(2)	2(4)	2(6)	1(4)	7(16)
3	Fractions and Decimals	2(2)	2(4)	2(6)	1(4)	7(16)
	TOTAL	5(5)	6(12)	5(15)	2(8)	18(40)

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SECTION – A(Each question carries 1 mark)

1. $(-1) \times (-1) \times (-1) \times (-1)$ is equal to
(a) 2 (b) 1 (c) -1 (d) -2
2. Which of the following is a proper fraction?
(a) $\frac{7}{4}$ (b) $\frac{4}{7}$ (c) $-\frac{5}{2}$ (d) None of these
3. $0.4 \div 2 =$
(a) 0.4 (b) 0.2 (c) 0.1 (d) 0.8
4. The supplementary angle for 50° is
(a) 50° (b) 40° (c) 130° (d) 90°
5. The angle which is equal to its complement is
(a) 40° (b) 90° (c) 45° (d) 60°

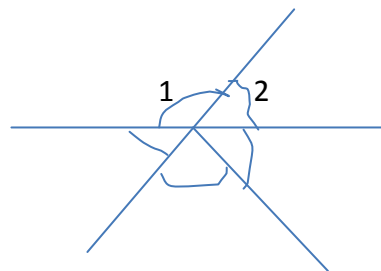
SECTION – B (Each question carries 2 marks)

6. Evaluate (a) $(-30) \div 10$ (b) $(50) \div (-5)$
7. Find the product (a) $(-1) \times (-225)$ (b) $(-15) \times (-10) \times 0$
8. Express the following as rupees using decimals (a) 7 paise (b) 230 paise
9. Find the value of $\frac{2}{3}$ of 18
10. From the given figure identify a pair of

(a) vertically opposite angles

(b) linear pairs

5 4 3



11. Fill in the blanks

(a) If two angles are supplementary, then the sum of their measures is _____

(b) If two lines intersect at a point, then the vertically opposite angles are _____

SECTION – C (Each question carries 3 marks)

12. Find the product using suitable property

(a) $26 \times (-48) + (-48) \times (-36)$

(b) $8 \times 83 \times (-125)$

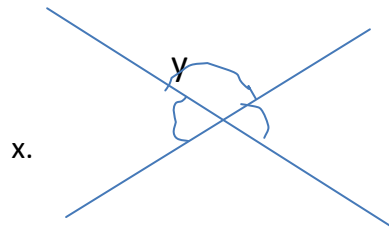
13. Multiply and reduce to lowest form

(a) $\frac{5}{2} \times 6$ (b) $20 \times \frac{4}{5}$

14. Find (a) $12 \div \frac{3}{4}$ (b) $\frac{4}{3} \div 2$

15. Find the values of 'x' and 'y' in the 55°

Following figure and give reasons



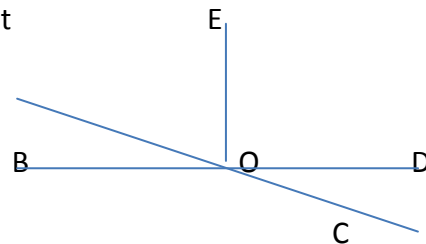
16. From the adjoining figure answer

The following questions

(a) Name one pair of the angles which are obtuse and vertically opposite

(b) Name one pair of the angles which are adjacent and complementary angles

(c) Name one pair of equal Supplementary angles



SECTION – D (Each question carries 4 marks)

16. Sushant reads $\frac{1}{3}$ part of a book in 1 hour. How much part of the book will he read in

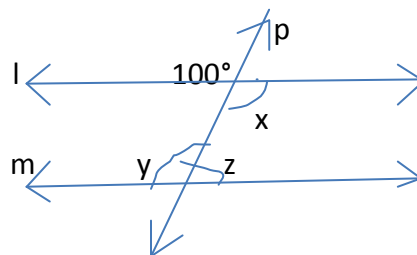
$2\frac{1}{5}$ hours

17. In the given figure

The line $l \parallel m$ and p is a

Transversal, then find the

Values of x, y, z (Give reasons)



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ANSWER KEY

SECTION – A 1) b 2) b 3) b 4) c 5) c

SECTION – B

6) (a) -3 ----- 1 mark

(b) -10 ----- 1 mark

7) (a) 225 ----- 1 mark

(b) 0 ----- 1 mark

8) (a) Rs. 0.07 ----- 1 mark

(b) Rs. 2.30 ----- 1 mark

9) $\frac{2}{3} \times 18$ ----- 1/2 mark

Simplification & final answer 12 ----- $1\frac{1}{2}$ mark

10) (a) Vertically opposite angles are 2 and 5 ----- 1 mark

(b) Linear pair(s) of angles 1 and 2 (OR) 1 and 5 ----- 1 mark

11) (a) 180° ----- 1 mark

(b) equal ----- 1 mark

SECTION C

12) (a) $-48 [(26) + (-36)]$ ----- 1/2 mark

$-48 [-10]$ ----- 1/2 mark

480 ----- 1/2 mark

(b) $83 \times 8 \times -125$ ----- $\frac{1}{2}$ mark

83×-1000 ----- $\frac{1}{2}$ mark

-83000 ----- 1/2 mark

13) (a) $30/2$ ----- 1 mark

15 ----- $\frac{1}{2}$ mark

b) $80/5$ ----- 1 mark

16 ----- $\frac{1}{2}$ mark

14) (a) $12 \times \frac{4}{3}$ ----- 1 mark

16----- $\frac{1}{2}$ mark

b) $\frac{4}{3} \times \frac{1}{2}$ ----- $\frac{1}{2}$ mark

$\frac{2}{3}$ ----- 1 mark

15) (a) $x = 55^\circ$ (vertically opposite angles) ----- $1\frac{1}{2}$ mark

(b) $y = 125^\circ$ (linear pair) ----- $1\frac{1}{2}$ mark

16) (a) $\angle AOD$ and $\angle BOC$ are vertically opposite and obtuse angles--- 1 mark

b) $\angle BOA$ and $\angle AOE$ are adjacent and complementary angles ---- 1 mark

c) $\angle BOE$ and $\angle DOE$ are equal supplementary angles----- 1 mark

SECTION D

17) part of a book read in 1 hour = $\frac{1}{3}$ ----- $\frac{1}{2}$ mark

Total time = $2\frac{1}{5}$ hour ----- $\frac{1}{2}$ mark

= $\frac{11}{5}$ hour ----- 1 mark

Part of the book read in $2\frac{1}{5}$ hour = $\frac{11}{5} \times \frac{1}{3}$ ----- 1 mark

= $\frac{11}{15}$ part ----- 1 mark

18) $x = 100^\circ$ (vertically opposite angles)

$Y = 100^\circ$ (corresponding angles **OR** alternate interior angles when compared with x)

$Z = 80^\circ$ (y and z are linear pair) OR

(X and z are the angles on the same side of transversal)

[for each answer 1 mark x 3 = 3 marks & reason(s) 1 mark]

KENDRIYA VIDYALAYA SANGATHAN

HYDERABAD REGION

Marking Scheme MODEL PAPER(TERM 1) FORMATIVE ASSESSMENT 1

Marks: 40

Class – VIII

Time: 90 mins

Subject - Mathematics

1.(c)

2.(b) (1 mark each)

3.(a)

4.(b)

5.(d)

6. For showing $\frac{2}{11}$ on the number line- 1 mark

For showing $-\frac{5}{11}$ on the number line – 1 mark

7. $\frac{x}{3} = -\frac{5}{2} - \frac{3}{2}$ (1/2 mark)

$\frac{x}{3} = -\frac{8}{2}$ (1/2 mark)

$\frac{x}{3} = -4$ (1/2 mark)

$x = -12$ (1/2 mark)

8. $\angle A = 65^\circ$

$\angle C = 65^\circ$ (Opposite angles are equal) - $\frac{1}{2}$ mark

$\angle A + \angle B = 180^\circ$ (adjacent angles are supplementary) - $\frac{1}{2}$ mark

$\angle B = 180^\circ - 65^\circ = 115^\circ$ - $\frac{1}{2}$ mark

$\angle D = 115^\circ$ - $\frac{1}{2}$ mark

9. Number of sides = 360° /Each exterior angle – 1 mark

$360^\circ/40 = 9$ sides – 1 mark

10. $50^\circ + z = 180^\circ$ (linear pair)

$z = 180^\circ - 50^\circ = 130^\circ$ - 1 mark

$50 + y = 180$

$y = 180 - 50 = 130$ - 1mark

$x = y = 130^\circ$ - 1 mark

11. KL and MN are 2 lines. ML is the transversal - 1mark

$$\angle M + \angle L = 180^\circ - 1 \text{ mark}$$

Therefore, $MN \parallel KL$ - 1 mark

12. For correct figure – 3 marks

$$13. \frac{2}{5} \times \frac{-3}{7} - \frac{3}{7} \times \frac{3}{5} - \frac{1}{14}$$

$$= \frac{-3}{7} \left(\frac{2}{5} + \frac{3}{5} \right) - \frac{1}{14} - 1 \text{ mark}$$

$$= \frac{-3}{7} \times \frac{5}{5} - \frac{1}{14} - 1 \text{ mark}$$

$$= \frac{3}{7} - \frac{1}{14} = \frac{-7}{14} = -\frac{1}{2} - 1 \text{ mark}$$

$$14. \frac{6n-9n+10n}{12} = 21 - 1 \text{ mark}$$

$$7n/12 = 21 - \frac{1}{2} \text{ mark}$$

$$7n = 21 \times 12 - \frac{1}{2} \text{ mark}$$

$$n = 36 - 1 \text{ mark}$$

15. For writing 8 rational numbers between $-2/5$ and $1/2$ - $\frac{1}{2}$ mark each

16. Let pranay's present age be x years

father's present age is 7x years - 1mark

After 2 years :

$$7x + 2 = 5(x+2) - 2 \text{ marks}$$

$$x=4 - 1 \text{ mark}$$

OR

Let the unit digit be x

$$\text{Tens digit} = x+6 - \frac{1}{2} \text{ mark}$$

$$\text{Number} = 10(x+6) + x = 11x + 60 - 1 \text{ mark}$$

$$11x + 60 = 10(x+x+6) - 1 \text{ mark}$$

$$x = 0$$

$$\text{unit digit} = 0 - \frac{1}{2} \text{ mark}$$

$$\text{tens digit} = 6 - \frac{1}{2} \text{ mark}$$

$$\text{Therefore, number} = 60 - \frac{1}{2} \text{ mark}$$

17. For the correct figure – 3marks

steps of construction – 1 mark