

BUDHA DAL PUBLIC SCHOOL PATIALA
FINAL EXAMINATION (28 February 2024)
MATHEMATICS

Class - VI
(Set - A)

Time Allowed: 3 hours

Maximum Marks: 80

Instructions:

1. All questions are compulsory.
2. Section - A : Q.No. 1 to 6 carry 1 mark each
3. Section - B : Q.No. 7 to 12 carry 2 marks each
4. Section - C : Q.No. 13 to 22 carry 3 marks each
5. Section - D : Q.No. 23 to 30 carry 4 marks each

SECTION-A

1. If one piece is cut into six equal pieces, then one piece represents _____ of the pizza. 1
2. $50 + \frac{1}{10}$ written as in decimal- _____, 1
3. Find the perimeter of a regular pentagon with each side is 6cm. 1
4. Name a regular polygon with eight sides. 1
5. Which expression has only variable? 1
a) 8 b) 9 c) 5x d) 5
6. Find the ratio of 90 cm to 1.5 m. 1

SECTION-B

7. Simplify : $3\frac{3}{7} - 1\frac{5}{7}$ 2
8. a) Express 17m 84 cm in metres. 2
b) _____ is measurement use for distance.
9. A teacher distribute 6 pencils per student. Can you tell how many pencils are needed if number of students are 'S'. 2
10. Divide Rs. 60 in the ratio 1 : 2 between Kriti and Kiran. 2
11. Name the type of following triangles : 2
a) $\triangle DEF$ With $\angle D = 30^\circ$, $\angle E = 70^\circ$ and $\angle F = 80^\circ$
b) $\triangle XYZ$ With $\angle Y = 90^\circ$ and $XY = YZ$
12. A floor is 8 m long and 4 m wide. A square carpet of side 3 m is laid on the floor. Find the area of floor that is not carpeted. 2

SECTION-C

13. Nandini's house is $\frac{11}{10}$ km from her school. She walked some distance and took a bus for $\frac{1}{2}$ km to reach the school. How far did she walk? 3

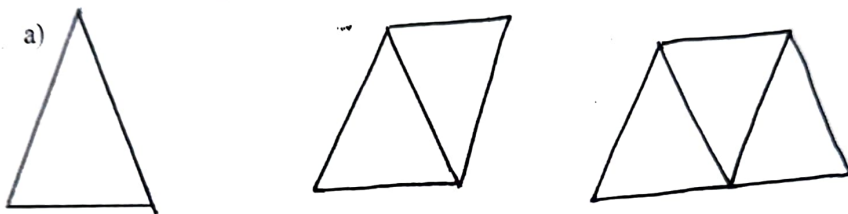
14. Write in simplest form 3
- a) $\frac{16}{96}$
- b) Which is greater 0.99 or 0.199
- c) Find the sum $16 + 0.632 + 13.8$
15. Abhishek had Rs. 7.45. He bought toffees for Rs. 5.30. Find the balance amount left with Abhishek. 3
16. A piece of string is 60 cm long. What will be length of each side of the string if it is used to form. 3
- a) Square b) an equilateral triangle c) a regular hexagon
17. How many tiles whose length and breadth are 12 cm and 5 cm respectively will be needed to fit in a rectangular region whose length and breadth are 246 cm and 100 cm respectively. 3
18. a) Write the rule for finding the perimeter of equilateral triangle (each side is x) 3
b) Give an example of variable and constants.
19. a) Do the ratios 15 cm to 2 m and 10 sec to 3 minutes form a proportion. 3
b) Write equivalent ratios of 6 : 4
20. a) Cost of 105 envelopes is Rs. 350. How many envelopes can be purchased for Rs. 100? 3
b) Find the ratio of permanent teeth to milk teeth.
21. a) What is the measure of (i) a right angle (ii) a straight angle 3
b) Which direction will you face if you start facing east and make $1\frac{1}{2}$ of revolution clockwise.
c) Draw a rough sketch of a regular octagon. Draw a rectangle by joining exactly four of the vertices of octagon.
22. **Fill in the blanks:** 3
- a) An angle smaller than right angle is called an _____ angle.
- b) The angle for one revolution is _____ angle.
- c) A triangle is made up of three _____.

SECTION-D

23. a) Write $\frac{129}{8}$ as mixed fraction. 4
 b) Write $\frac{5}{6}$ as a fraction with numerator 60.
 c) Draw the number line and locate point on them $\frac{2}{9}, \frac{5}{9}, \frac{8}{9}, \frac{9}{9}$ 4

24. a) Subtract 65.07 m from 612.78 m. 4
 b) Rahul bought 4 kg 90g of apples, 2 kg 60g of grapes and 5 kg 300g of mangoes. Find the total weight of all the fruits he bought. 4

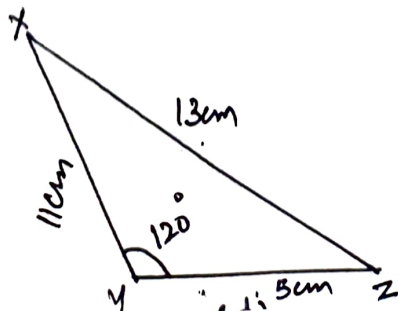
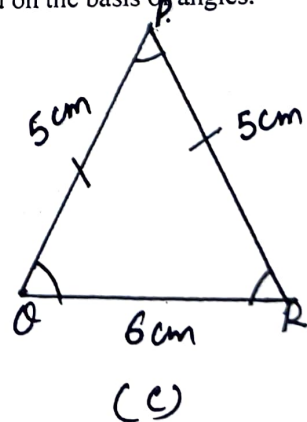
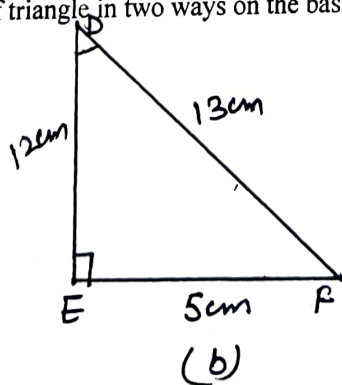
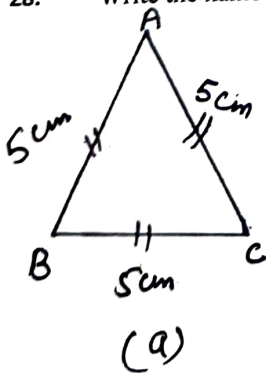
25. Find the rule that gives the number of matchsticks required to make following pattern. 4



- b) For E required matchsticks are write general rule for that.
26. a) The area of rectangular piece of cardboard is 48 sq.cm and its length is 8cm. What is the width of cardboard? 4
 b) What is the side of square if the perimeter of square is 72 cm.

27. There are 45 persons working in an office. If the number of females is 25 and the remaining are males. Find the ratio of 4
 a) the number of females to a number of males.
 b) the number of males to total number of persons.

28. Write the name of triangle in two ways on the basis of sides and on the basis of angles. 4

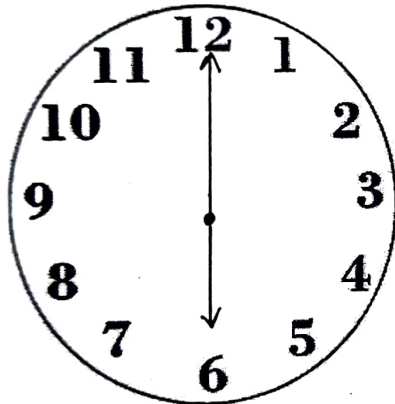


29. A farmer has rectangular field that measures 20m in length and 10 m in width. He wants to grow crops in the field and plans to divide it into smaller, equal sized square plots each side of 8m. 4

On the basis of given information, answer the following questions by choosing the correct option from the given four options in each question:

- 1) What is the formula to calculate the perimeters of square?
a) $2(l + b)$ b) $l \times b$ c) side \times side d) $4 \times$ side
- 2) What is area of each square plot?
a) 8 m^2 b) 64 m^2 c) 72 m^2 d) 80 m^2
- 3) What is the area of rectangular field?
a) 200 m^2 b) 60 m^2 c) 30 m^2 d) 64 m^2
- 4) What is formula for finding the perimeter of rectangle?
a) $2(l + b)$ b) $l \times b$ c) $l \times l$ d) none of these

30. On the basis of clock answer the following questions: 4



- 1) What is angle form at 6 O' clock?
a) 90° b) 60° c) 180° d) None of these
- 2) Is the clock a polygon?
a) Yes b) No
- 3) What is the angle formed at one complete revolution?
a) 90° b) 180° c) 360° d) 270°
- 4) What part of a revolution have you moved if you start from 3 and reach back to 3?
a) 1 b) $\frac{1}{2}$ c) $\frac{3}{4}$ d) $\frac{1}{4}$

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SECTION-A

1. _____ degrees are there in half a revolution. 1
2. _____ is used to represent part of whole. 1
3. $96 + \frac{74}{100}$ written in decimal _____, 1
4. What is a polygon? 1
5. Find the ratio of 2 km to 7500 m. 1
6. Number of matchsticks required to make a triangle are 1
a) 4 b) 3 c) 5 d) 6

SECTION-B

7. Simplify : $1\frac{1}{3} + 3\frac{2}{3}$ 2
8. Which is greater? 2
a) 0.09 _____ 0.90
b) 1.5 _____ 2.3
9. Cost of 1 notebook is Rs. 23. Write the rule for total cost of 'm' notebooks. 2
10. Name the type of following triangles : 2
a) ΔPQR With $\angle Q = 90^\circ$
b) ΔABC With $AB = BC = 5\text{cm}$, $CA = 6\text{cm}$ and $\angle B = 110^\circ$
11. Divide 66 chocolates among Apexa and Tina in the ratio 7 : 4. 2
12. A table top measures 2m 50cm by 2m. What is the area in square metres? 2

SECTION-C

13. A square flower bed of side 3m is dug on a piece of land 6m long and 4m wide. What is the area of remaining part of the land? 3

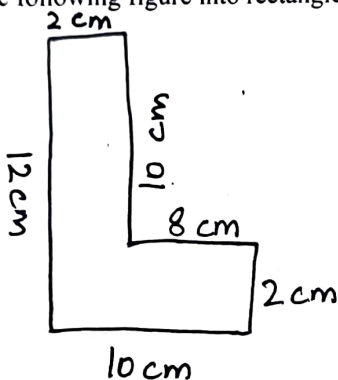
14. Suman had 24 sweets. Kiran had 36 sweets and Preeti had 15 sweets. Suman ate 12 sweets, Kiran ate 12 sweets and Preeti ate 10 sweets. What fraction of their own sweets did each eat? 3
15. a) Arrange 12.142, 12.124, 12.104, 12.401 and 12.214 in ascending order. 3
b) Convert 5809 g to kg.
16. State True or False 3
a) Each angle of a square is right angle
b) A scalene triangle has two equal sides
c) Angle made by hour hand is an obtuse angle when it moves from 6 to 9
17. Write down the measures of 3
a) Two acute angles
b) Two obtuse angles
c) Two Reflex angles
18. a) On his last birthday, Ketan weighed 40 kg. If he put on 'm' kg of weight during this year, what is his present weight? 3
b) Find the rule for writing letter E
19. Cost of 5 kg of wheat is Rs. 100. 3
a) What will be the cost of 8 kg of wheat?
b) What quantity of wheat can be purchased in Rs. 220.
20. Tina had 20 m 5 cm long cloth. She cuts 4 m 50 cm length of cloth from this for making a curtain. How much cloth is left with her? 3
21. Determine if the following ratios are in proportion. If so, write the middle terms and extreme terms. 3
a) 200 ml : 2500 ml and Rs. 4 : Rs. 50
b) 25 cm : 1 m and Rs. 40 : Rs. 160
22. a) One side of an Isosceles triangle is 10 cm. If perimeter of the triangle is 36 cm, find the other two sides. 3
b) Draw any polygon with three sides.

SECTION-D

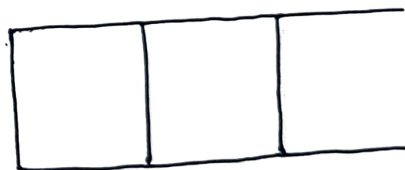
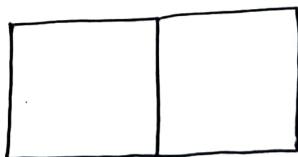
23. a) Write $\frac{64}{9}$ as mixed fraction. 4
 b) Write $\frac{15}{35}$ as a fraction with denominator 7.
 c) Draw the number line and locate point on them $\frac{2}{5}, \frac{4}{5}, \frac{8}{5}, \frac{3}{5}$
 d) Write the natural numbers from 2 to 13. What fraction of them are prime numbers?

24. a) Subtract 9.847 from 11.60. 4
 b) Samson travelled 5 km 52 m by bus, 2 km 265 m by car and 1 km 30 m he walked. Find the total distance travelled by him.

25. a) By splitting the following figure into rectangle, find its area (in cm) 4



- b) The perimeter of a regular pentagon is 200 cm. How long is its each side?
 26. a) If each matchbox contain 50 matchsticks, find the rule for the number of matchsticks required to fill 'n' such boxes. 4
 b) Find the rule that gives the number of match sticks required to make the following patterns.



27. **Fill in the blanks :** 4
 a) If you are facing south and then you make a right angled turn in clockwise direction, you will face _____ direction.
 b) Two lines intersecting at right angle are said to be _____ line.
 c) _____ is the measurement used for weight.
 d) 945 cm = _____ m.

28. In a Class of 36 students, 20 are girls and rest are boys. Find the ratio of

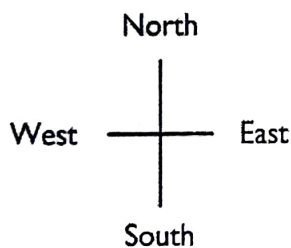
- the number of girls to the number of boys.
- number of boys to total students in class.
- total students in class to number of girls.
- the number of boys to the number of girls.

29. A farmer has rectangular field that measures 30m in length and 18 m in width. He wants to grow crops in the field and plans to divide it into smaller equal sized square plots each having side of 6m. 4

On the basis of given information, answer the following questions by choosing the correct option from the given four options in each question:

- What is the area of rectangular field?
 - 120 m^2
 - 540 m^2
 - 96 m^2
 - 210 m^2
- What is formula to calculate area of _____ square?
 - $2(l + b)$
 - $l \times b$
 - $4 \times \text{side}$
 - $\text{side} \times \text{side}$
- What is the perimeter of each square plot?
 - 24 m
 - 36 m
 - 14 m
 - 12 m
- What is the formula to calculate the perimeter of rectangle?
 - $2(l + b)$
 - $l \times b$
 - $4 \times \text{side}$
 - $\text{side} \times \text{side}$

30. Directions are used to describe locations and navigate on Earth's surface. There are 4 primary directions – North, South, East and West. 4



- Which direction will you face if you start facing west and makes $\frac{1}{2}$ of a revolution anti clockwise.
 - North
 - South
 - East
 - West
- Which direction will you face if you start facing North and makes $1\frac{1}{2}$ of a revolution.
 - North
 - South
 - East
 - West
- Which direction will you face if you start facing South and makes $\frac{3}{4}$ of a revolution clockwise.
 - North
 - South
 - East
 - West
- What part of a revolution have you moved if you stand facing South and turn clockwise to face East.
 - $\frac{1}{2}$
 - $\frac{3}{4}$
 - 1
 - $\frac{1}{4}$