

Section A (Mental Math)

Q1) Write True (T) or False (F)

($\frac{1}{2} \times 8 = 4$)

- (i) Integers are not closed under Subtraction.
- (ii) If a transversal line cuts any two parallel lines then co-interior angles will be complementary.
- (iii) Two-third of 42 is 28.
- (iv) A fraction is a rational number but a rational number may or may not be a fraction.
- (v) In a right angled triangle hypotenuse is the longest side.
- (vi) If two lines intersect then vertically opposite angles are equal.
- (vii) Alphabet 'A' has horizontal line symmetry.
- (viii) The probability of selecting a vowel from the list a, e, i, o, u is 1.

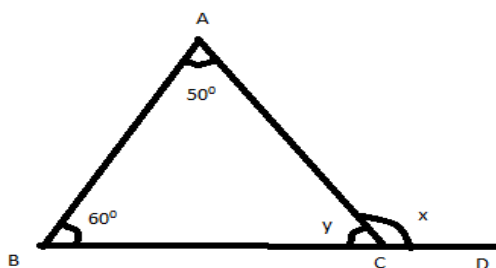
Q2) Fill in the blanks:

($\frac{1}{2} \times 8 = 4$)

- (i) The standard form of $\frac{-102}{119}$ is
- (ii) $0 \div (-5) = \dots\dots\dots$
- (iii) Which is greater 0.6 or 0.06
- (iv) The number of altitudes in a triangle is.....
- (v) The Supplementary of 35° is
- (vi) An isosceles triangle has Lines of symmetry.
- (vii) The angle formed between the east and west direction is
- (viii) The mean of first 5 multiples of 10 is

SECTION B (2 mark question 2x8 = 16)

- Q3)** A certain freezing process requires that room temperature be lowered from 30°C at the rate of 3°C every hour. What will be the room temperature 14 hours after the process begins?
- Q4)** Write four pair of integers (a, b) such that $a \div b = -3$
- Q5)** Differentiate Median and Altitude of a triangle.
- Q6)** Find the value of 'x' and 'y' in the given figure.



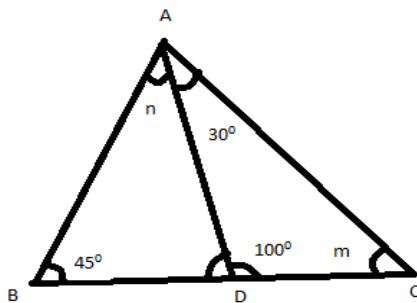
- Q7)** Find the median of the data: 19, 25, 59, 48, 35, 31, 30, 32, 51.

If 25 is replaced by 52, what will be the new median.

- Q8)** A two-wheeler covers a distance of 55.3 km in one liter of petrol. How much distance will it cover in 10.5 liters of petrol?
- Q9)** Is there a triangle whose sides have lengths 10.2 cm, 5.8 cm and 4.5 cm?
- Q10)** Find: $(x + y) \div (x - y)$ if $x = \frac{4}{5}$ and $y = \frac{6}{5}$

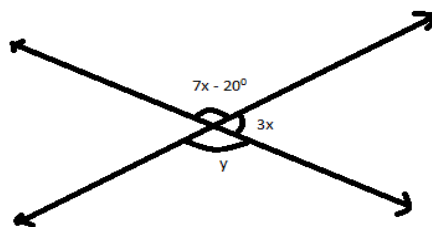
SECTION C (3 mark question 3x6 = 18)

- Q11)** If a dice is thrown find the probability of getting:
- (i) a even number
- (ii) a prime number
- Q12)** Simplify: $36.54 - 15.79 + 85.2 - 57.615$
- Q13)** Find the 6 rational numbers between $\frac{-2}{3}$ and $\frac{-1}{2}$
- Q14)** Arrange the following rational numbers in ascending order:
- $$\frac{-7}{10} \quad \frac{5}{-8} \quad \frac{2}{-3}$$
- Q15)** Find the area of a square field if its each side is $10\frac{3}{4}$ m.
- Q16)** Find the value of 'm' and 'n' in the given figure.



SECTION D (4 mark question 4x7 = 28)

- Q17)** Verify that : $a \times (b + c) = (a \times b) + (a \times c)$ for $a = 12$, $b = -4$ and $c = 2$.
- Q18)** In the given figure AB and CD intersect at O. find x and y



- Q19)** The diagonals of a rhombus measures 48 m and 14 m. Find its perimeter.

Q20) The height of 10 students were measured in cm and the result as follows :

135, 150, 139, 130, 151, 136, 146, 149, 143, 141

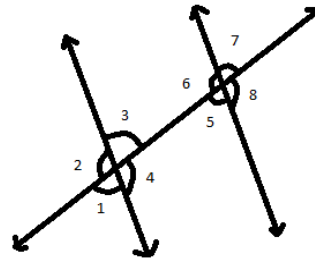
- (i) What is the range of the data?
- (ii) How many students have the heights more than the mean height?

Q21) State the number of line symmetry for the following figures

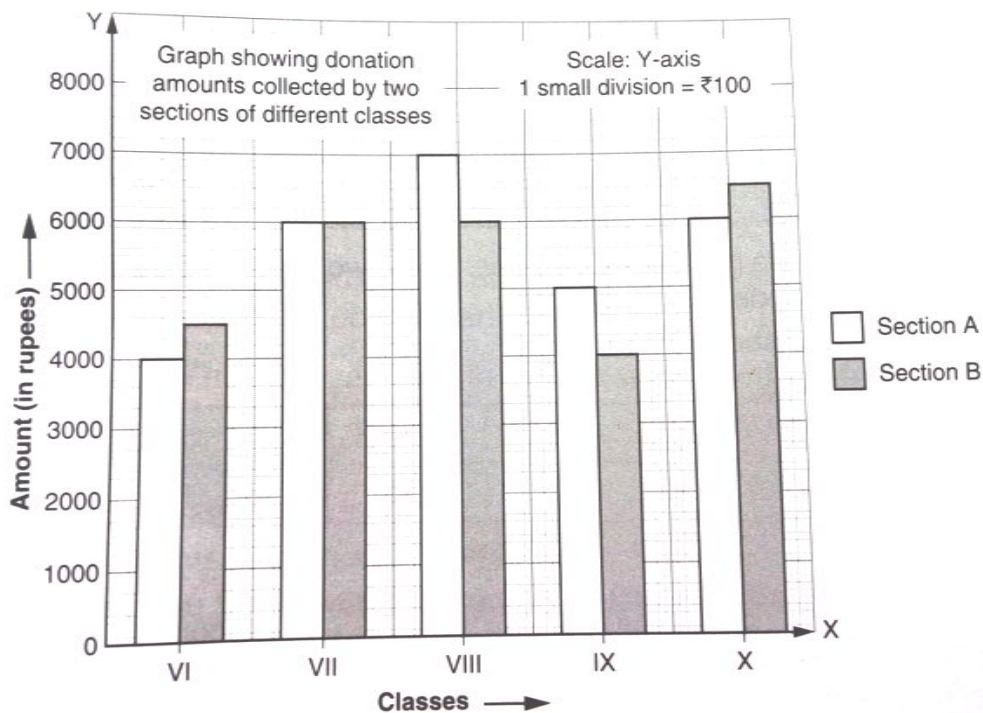
- (i) An scalene triangle
- (ii) A rhombus
- (iii) A circle
- (iv) A regular hexagon

Q22) In the given figure l parallel to m, write

- (i) Pair of alternate interior angles
- (ii) Pair of corresponding angles



Q 23) Given below is the bar graph showing amount collected for donation by section A and Section B of different class. Read the graph carefully and answer the following question:



Bar graph showing donation amounts collected by two sections of different classes

- (i) Which section of class IX has collected more amount? How much?
- (ii) What is the difference in the amounts collected by class VI and class IX?
- (iii) Have both the sections of any class collected same amount? If yes, which class and how much?
- (iv) Which class has collected the maximum amount? How much?

SECTION E (6 mark question 6x5 = 30)

Q24) State and prove Exterior angle property.

Q25) Match the following

(a) $\frac{-3}{4} + \frac{-1}{4}$ (i) 3

(b) $\frac{2}{-5} \times (-15)$ (ii) -1

(c) $\frac{6}{-7} \div \frac{-6}{21}$ (iii) 6

Q26) The performance of students in SA1 and SA2 is as given below. Draw a double bar graph choosing appropriate scale and answer the following:

Subject	English	Hindi	Maths	Science	S. Science
SA1	67	72	88	81	73
SA2	70	65	95	85	75

(i) In which subject, has the children improved their performance the most?

(ii) Has the performance gone down in any subject?

Q27) A cement company earns a profit of Rs 5 per bag of white cement sold and a loss of Rs 2 per bag of grey cement sold.

(a) The company sells 4500 bags of white cement and 8500 bags of grey cement in a month. What is its profit or loss?

(b) What is the number of white cement bags it must sell to have neither profit nor loss, if the number of grey bags sold is 5250 bags.

Q28) Solve :

(a) $3\frac{2}{5} \times 7\frac{1}{2} - 4\frac{1}{3} \times 2\frac{1}{7}$

(b) Divide 1391 by 1.3
