

Department of Education - Western Province

Year End Evaluation - 2013

Grade 7
Mathematics

1181

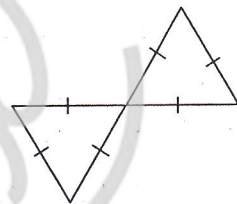
Name / Index No :

Time : 2 Hours

- * Answer all the questions 1 to 20 on this paper itself.
- * Two marks each for questions 1 – 20.

Part I

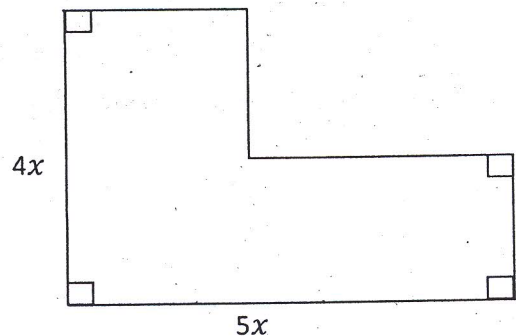
1. How many axes of symmetry are there in this figure?



2. Evaluate $(-5) + (-3)$.

3. Write the set “multiples of two less than 10” with elements.

4. Find the perimeter of this figure, in terms of x .



5. i. Find the digital index of 102 330.

ii. Is the above number divisible by 9.

6. The Mass of a motor bicycle is 75kg 750g and the mass of a man is 59kg 800g. Find the total mass, when the man is sitting on the bicycle?

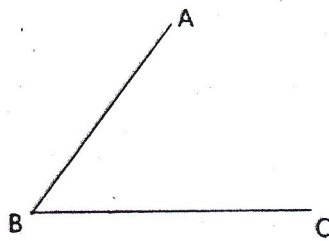
7. Evaluate 0.27×90 .

8. Find the highest common factor of the numbers 10, 15 and 20.

9. Write 125 as a power of 5.

10. Write two features of a tessellation.

11. Mark the acute angle as a and the reflex angle as b on the diagram.



12. Write the time 4.30 p.m. in 24 hour clock.

13. Simplify. $2\frac{1}{2} + 3\frac{1}{4}$

14. Add. $2.36 + 0.7 + 1.25$

15. Write the number of edges and number of vertices of a square based pyramid.

16. Rs. 12 000 was divided among A,B and C to the ratio 1 : 2 : 3. Find the amount of money received by C.

17. Assign a mark for the events given below from the range 0-1.

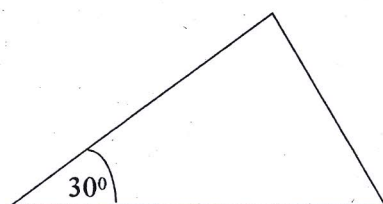
i. Sun rises from East.

ii. A man living 200 years.

18. Solve the equation $2x - 5 = 3$.

19. The length, breadth and the height of a cuboid shaped vessel are 50cm, 40cm and 20 cm respectively. Find the capacity of it in liters.

20. According to the triangle given in the figure, one angle is 30° . Another angle is twice of it. Magnitude of the remaining angle is equal to the sum of the above two angles. What type of a triangle is this, with respect to the angles?



Part II

- * Answer the first question and 4 more questions.
- * First question carries 16 marks and other questions carry 11 marks each.
- * Write answers for part II on a separate paper and attach to part I.

1. Remind the explorative study you did with the help of your mathematics teacher, related to the lesson scale drawings.

- a) i What is a scale diagram?
- ii Write two occasions we use scale diagrams in day-today life.
- iii Write two advantages of using a scale diagram.
- b) In a rectangular land, the length is 50m and the breadth is 30m.
- i Draw a rough plan of the land.
- ii Draw a scale diagram for this land using the scale 1:500.
- iii What is the measurement unit used to draw the scale diagram?
- iv Find the perimeter of the scale diagram.

- c) i Find the area of the above land in square meteres
- ii Find the value of the land, if 1m^2 of the land is Rs: 5000.

2. a) The stem and leaf diagram given below represents marks obtained by a group of students for a mathematics paper.

stem	leaf
1	2, 5, 9
2	4, 3, 5
3	5, 7, 7, 7
4	0, 1, 8, 9

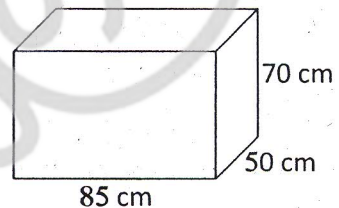
- i How many students are there in this group?
- ii Which mark is obtained by most number of students?
- iii What is the highest mark obtained?
- iv Find the range of marks.
- v Write the number of students who got less than 30, as a fraction of the total number of students.
- b) $A = \{\text{letters of the word "COLOMBO"}\}$. Represent the set A in another two ways.

3. a) i Simplify $6x + 5y - 2x - 3y + y - x$.
 ii Solve the equation $2x - 1 = 7$ using flow diagram and inverse flow diagram.
 iii Solve the inequality $2 + x < 5$ and represent the integral solutions on a number line.
- b) i Find the value of 2^4 .
 ii Find the value of $5x^2y$ if $x = 2$ and $y = 3$.

4. i Plot the points given below on a Cartesian plane.
 $A = (3, 4)$, $B = (5, 2)$, $C = (4, 8)$, $D = (8, 6)$
 ii Join AB, BD, DC and CA.
 iii Give a name for the figure you obtained.
 iv Write the coordinates of a point inside the figure.
 v Write the coordinates of the origin.

- 5 a) According to given diagram length, breadth and height of a cuboid shaped box are 85cm, 50cm and 70cm respectively.

- i Draw a rough diagram of the face, which has the largest area including measurements.
 ii Find the volume of the cuboid shaped box.
 iii The box is completely packed with cubical shaped boxes with one side 10 cm. What is the maximum number of boxes that can be packed inside the cuboid shaped box?
 iv Find the total area of all six faces of the cubical shaped box.



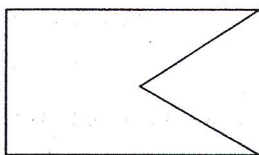
- b) Tharindu has Rs x . Chamath has twice of it. Boditha has Rs y . Rs 50 from Tharidu and Rs 100 from Chamath were given to Boditha.

Write algebraical expressions for the following questions.

- i What is the balance amount Tharindu has?
 ii What is the amount Boditha has now?

- 6 a) i Annual rate of interest of a bank loan is 20%. Write this as a fraction in the simplest form.
 ii Year 2096 is a leap. Which year be the next leap year?
 iii Susil drank $\frac{3}{4}$ of a glass of milk. Anil drank $\frac{4}{5}$ of a glass of milk with the same size.
 Who drank more milk? Give reasons for your answer.

- b) i What type of a polygon is given in the figure? Give reasons.



- ii Construct a circle of center O and the radius 5cm. Measure and write the length of the diameter.
