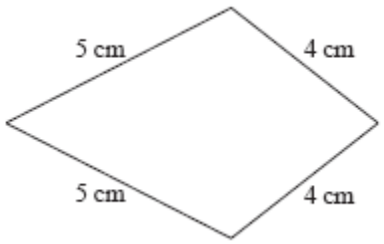
SUMMATIVE ASSESSMENT – II, - MAR 2016
MATHEMATICS
SET B

General Instruction:

- **All questions are compulsory.**
- **Questions 1 to 8 carry 1 mark each.**
- **Questions 9 to 14 carry 2 mark each.**
- **Questions 15 to 24 carry 3 mark each.**
- **Questions 25 to 34 carry 4 mark each.**

SECTION A $8 \times 1 = 8$

1. Which is the greatest negative integer?
2. Write the terms of the algebraic expression $4xy - 5z$.
3. The value of x in the equation $5 + x = 7$ is
4. Express as ratio. **3km to 30km**
5. How many sides and angles are there in a Triangle?
6. Calculate the perimeter of the following figure.



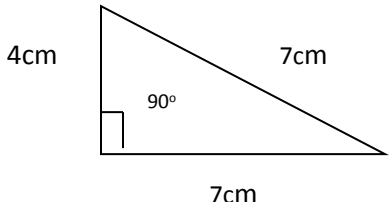
7. What is the name of the ten-sided polygon?
8. Draw a circle of radius **4.5cm**.

SECTION B $6 \times 2 = 12$

9. Arrange the following integers in the descending order

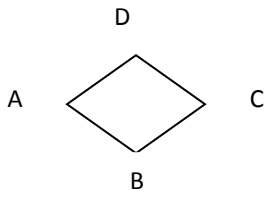
-3, 0, -1, +3, 1, -6, -4 , -5

10. Which ratio is smaller? **1:5** or **1:10**
11. Determine by substitution if **5** is a root of the equation $3x - 15 = 0$.
12. Add: $4x + 5x + 1.5x + 7$
13. The side of a square garden is **300m**. Find the area of the garden.
14. Identify the type of triangle



SECTION C 10 × 3 = 30

15. Solve to find the value of the unknown
    a) $25t = 50$ b) $8x - 4 = 20$
16. Simplify: **15 – (-10 -8)**
17. Form algebraic expression for the following.
    a) 22*xy* subtracted from **30 *xy.***
    b) Sum of ***i, j*** and ***k***
18. Convert this statement to an algebraic equation and solve.
    The product of a number ***x*** and **8** is **56**. Find ***x***.
19. Draw a line segment of length **6cm**. Then draw a perpendicular bisector of this line.
20. How many square tiles with dimension **5cm** can be fixed on a small surface whose length is **30cm** and breadth is **25cm**?
21. Given below is a rhombus. Answer the following questions.
    a) Is AB = BC = CD = DA? Yes/No
    b) Is AD || BC? Yes/No
    c) Is ∠ A = ∠C? Yes/No



22. In a class, the ratio of the number of boys to girls is **3:4**. If the number of girls is **20**, then find the number of boys.
23. State which of the following are in proportion

a) 3 : 15 :: 2 : 10

b) 3 : 6 :: 4 : 3

24. A survey of **120** school students was done to find which activity they prefer to do in their free time.

Preferred activity	Number of students
Playing	45
Reading story books	30
Watching TV	20
Listening to music	10
Painting	15

Draw a bar graph to illustrate the above data

SECTION D $10 \times 4 = 40$

25. Add: **[54] + [-34]**

Subtract: **[-76] – [-89]**

26. Multiply: $3a^2b \times 6a^2b$

Divide: $28a^3b^4c^2 \div 7a^3b^3c$

27. Write algebraic equation for each of the following statements.

a) The sum of two consecutive numbers is **27**.

b) A number y divided by **8** is **2.**

c) The difference of two numbers is **5**.

d) The product of m and n is **40**

28. Amir drives his car at a constant speed. If he travels **6km** in **10minutes**, how long will he take to travel **30km**?

29. The sum of two angles if **90 degrees**. The angles are in the ratio **2:3**. Find the measure of each angle.

30. One side of a square plot is **400m**. Find its area and then find the cost of leveling it at the rate of **Rs 2** per m^2.

31. Using ruler and compasses, construct angles of measures given below and bisect them.

a)90^o **b)120^o**

32. Classify the following triangles as acute-angled, right-angled, or obtuse-angled triangle according to the magnitude of their angles.

a) 45^o, 25^o, 110^o **b) 45^o, 45^o, 90^o**

c) 55^o, 50^o, 75^o **d) 60^o, 60^o, 60^o**

33. **Jamil** goes for his daily morning walk and takes **2 rounds** of a park with length and breadth **525m** and **200m** respectively. How many kilometers does he walk daily?

34. Use the bar graph (see the given figure) to answer the following questions.

(a) Which is the most popular pet?

(b) How many students have dog as a pet?

c) How many more students have cats as a pet than Rabbits?

d) Which is the least popular pet?

e) Prepare a frequency chart for the given bar graph data (use the name of the pets and number of students who have those pets)