INTERNATIONAL INDIAN SCHOOL DAMMAM

SUMMATIVE ASSESSMENT-II-MARCH 2015

Class : VII **Max. Time : 3 Hrs**

Subject :Mathematics **Max. Marks : 90**

SET A

Instructions:

(A) Attempt all questions.
(B) Section A: Questions 1-8 carry 1 marks each.
(C) Section B: Questions 9-14 carry 2 marks each.
(D) Section C: Questions 15-24 carry 3marks each.
(E) Section D: Questions 25-34 carry 4 marks each.
(F) Internal choice is given in Section B, C and D.

SECTION—A (1×8=8)

Choose the correct answers from the choices given below:

1. The coefficient of x in $-8xy^2$ is _____

(a) -8 (b) $-8y^2$ (c) $8y^2$ (d) $-8y$

2. 3 less than x equals 7 can be represented as _____

(a) $x-3=7$ (b) $3-x=7$ (c) $x-7=3$ (d) $7-x=3$

3. If $\angle B = \angle Q = 90°$, AB = PQ and AC = PR then by which congruence condition, $\Delta ABC \cong \Delta PQR$.

(a) SSS (b) SAS (c) ASA (c) RHS

4. Two angles of a triangle are 65° and 35°. Then the 3^{rd} angle is _____

(a) 100° (b) 180° (c) 80° (d) 30°

5. If two angles are complementary then the sum of their measures is _____

(a) 0° (b) 90° (c) 180° (d) 360°

6. 1 hectare = _____ m^2.

(a) 100 (b) 1000 (c) 10000 (d) 100000

7. The value of $(3°-2°)(3°+2°)$ is _____

(a) 0 (b) 1 (c) 2 (d) 3

8. The area of a triangle with base 10 cm and height 8 cm is _____ cm^2.

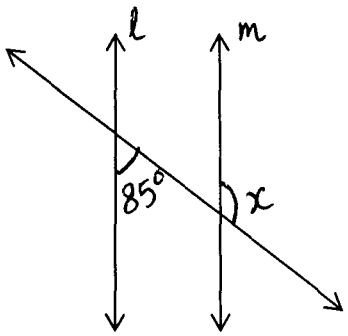
(a) 40 (b) 80 (c) 160 (d) 100

SECTION – B

(2×6=12)

9. Solve: $5 + 3p = 14$

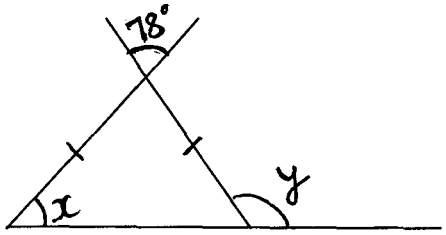
10. Find the value of x if "l" is parallel to "m".



11. Construct an equilateral triangle of side 7 cm.

12. Among two supplementary angles the measure of the larger angle is 44° more than the measure of the smaller. Find their measures.

13. Find the angles x and y from the figure given below:-



14. The lengths of two sides of a triangle are 7 cm and 9 cm . Between which two numbers can length of the 3rd side fall ?

OR

14. Is it possible to have a triangle with the sides 6 cm , 7 cm , 9 cm ? Give reason.

SECTION—C

(3 ×10 = 30)

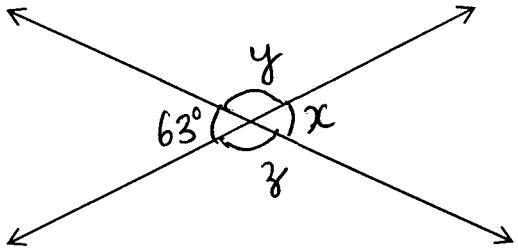
15. Express 192×144 as product of prime factors in exponential form.

16. Solve : $7 + 5(m-5) = 42$.

17. A 10 m long ladder reached a window 8 m high from the ground on placing it against a wall at a distance y . Find the distance of the foot of the ladder from the wall ?

18. Show the terms and factors by a tree diagram : $5x^2 - 7xy - y^2$.

19. From the figure , find the values of the angles x , y and z .

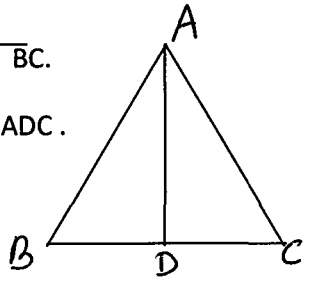


20. In the figure AB = AC and D is the mid- point of $\overline{BC}$.

(i) State the 3 pairs of equal parts in Δ ABD and Δ ADC .

(ii) Is Δ ADB ≅ Δ ADC . Give reason.

(iii) Is $\angle B = \angle C$. Why ? or why not?



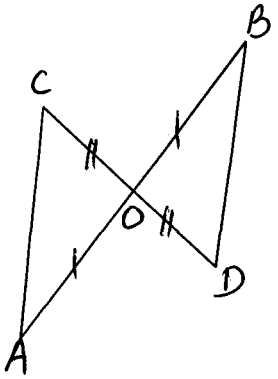
21. Construct Δ ABC with BC = 8 cm , AC = 5 cm and m $\angle C = 60°$.

22. In the figure , AB and CD bisect each other at O .

(i) State the 3 pairs of equal parts In two triangles AOC and BOD ?

(ii) Is Δ AOC ≅ Δ BOD ? Give reason.

(iii) Is AC = BD ? Why ? or why not ?



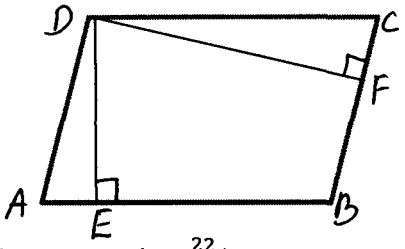
23. (a) Simplify $7^3 \times (-3)^2$

(b) Express in standard form 28,70,000.

24. In the figure , ABCD is a Parallelogram , DE ⊥ AB , AB = 30 cm , DE = 15 cm and BC = 25 cm.

(a) Find the area of Parallelogram ABCD .

(b) Find the length of DF.



OR

24. The circumference of a circle is 88 cm . Find its area. $(\pi = \frac{22}{7})$

SECTION—D

(4 × 10 = 40)

25. Construct Δ PQR if PQ = 6 cm , ∠Q = 105° and ∠R = 40°.

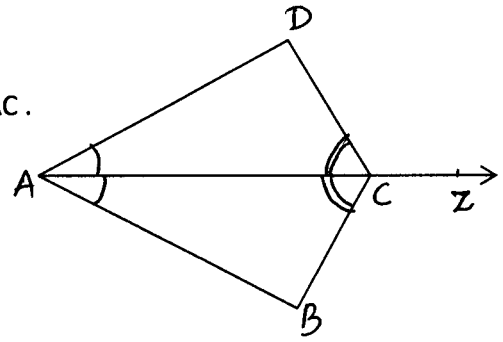
OR

25. Construct a triangle ABC , right angled at C in which AB = 7 cm and BC = 5 cm.

26. From the sum of $2a + 3b - 4$ and $6a + 8b + 11$, subtract $-4a - 5b + 9$.

27. A wire is in the shape of a square of side 12 cm .If the wire is rebent into a rectangle of length 14 cm , Find its breadth ? Which encloses more area , the Square or the rectangle ?

28. In the figure , ray AZ bisects ∠DAB as well as ∠DCB .



(i) State 3 pairs of equal parts in triangles BAC and DAC .

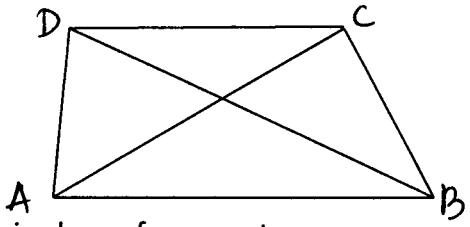
(ii) Is Δ BAC ≅ Δ DAC ? Give reasons .

(iii) Is AB = AD ? Why ? or why not ?

(iv) Is CD = CB ? Why ? or why not ?

29. Rahul's father is 40 years old. He is 4 years older than 4 times Rahul's age. What is Rahul's age ?

30. ABCD is a Quadrilateral . Is AB + BC + CD + DA > AC + BD ?

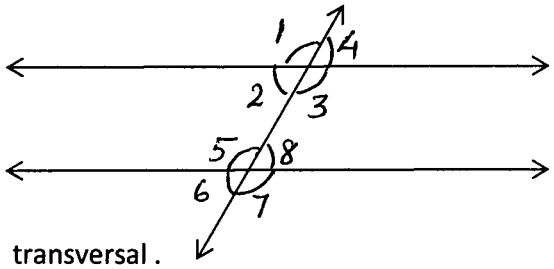


31. Simplify using laws of exponents.

$$\frac{(2^2)^3 \times 3^4 \times 49}{12 \times 42}$$

32. Two cross roads each of width 2 m cut at right angles through the centre of a rectangular park of length 150 m and breadth 125 m and parallel to its sides . Find the area of the roads .

33. In the adjoining figure identify :-



(i) The pairs of corresponding angles .

(ii) The pairs of alternate interior angles .

(iii) The pairs of interior angles on the same side of the transversal .

34. Simplify the expression and find its value when m = 1 and n = 2 .

$$3\,(m^2 + 2mn) - 9\,m^2 + 5$$

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