Maths Revision Test 7

Time : 60 mins

Max Marks : 40

Q1.

(a) If If $x = -2$ is a root of the polynomial $P(x) = -2x^4 - 7x^3 - 3x^2 - tx - 10$, then find the value of t.
3 marks

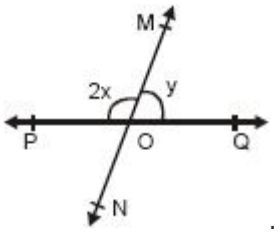
(b) Using the long division method, determine the remainder when the polynomial $4x^5 + 2x^4 - x^3 + 4x^2 - 7$ is divided by $(x - 1)$
3 marks

Q2. Using factor theorem, factorize each of the following polynomials:

(i) $2y^3 - 4y^2 - 2y + 4$
(ii) $2x^2 + 7x + 3$

6 marks

Q3. Determine



A) Determine x, when y = 40°. .

B) The exterior angles obtained on producing the base of a triangle both ways are 100° and 120°. Find all the angles.

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4 marks

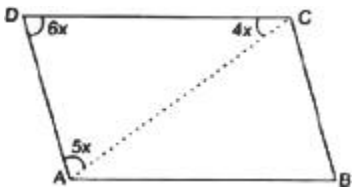
Q4 If the bisectors of angles of a quadrilateral enclose a rectangle, then show that it is a parallelogram.

3 marks

Q5 ABCD is a trapezium in which AB is parallel to CD. If ∟A = 36° and ∟B = 81°, then find ∟C and ∟D.

3 marks

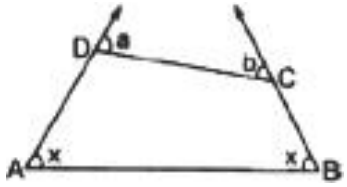
Q6. In the adjoining figure, ABCD is a ||gm. Find the angles A, B, C and D.



. 3 marks

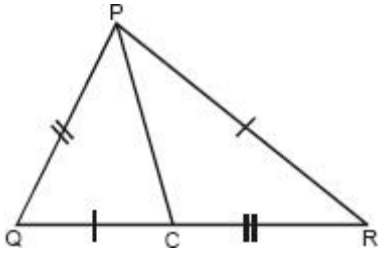
Q7. The sides AD and BC of a quadrilateral are produced as shown in the given figure.

Prove that $x = \frac{a+b}{2}$.



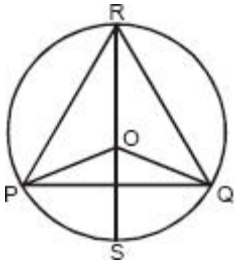
4 marks

Q8. In the given figure, triangles PQC and PRC are such that QC = PR and PQ = CR. Prove that ∠PCQ = ∠CPR.



4 marks

Q9. In given figure, RS is diameter and PQ chord of a circle with centre O. Prove that (a) ∠RPO = ∠OQR (b) ∠POQ = 2∠PRO



4 marks

Q 10 If B lies between A and C, AC = 12cm and BC= 9cm. what is AB^2?

3 marks

Q 11 Prove that two distinct lines cannot have more than one point in common.

3 marks