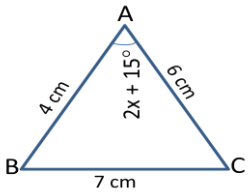
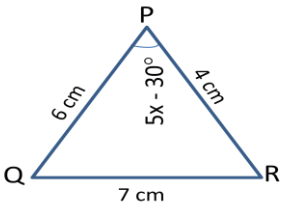
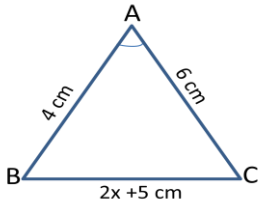
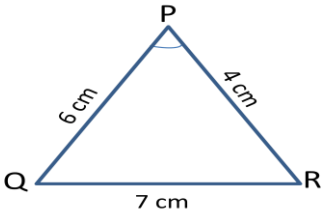
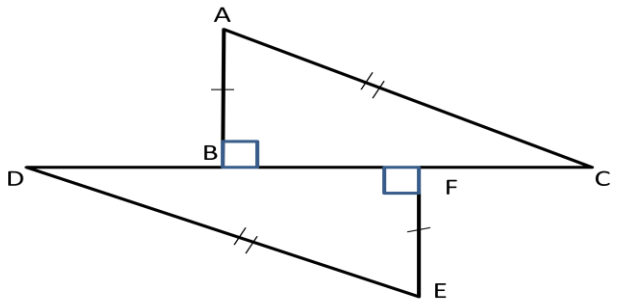
WORKSHEET (PT III)

CLASS VII

MATHEMATICS

1.	In Δ ABC and Δ PQR, AB = QR, ∠A = ∠R and ∠B = ∠Q, then Δ ABC ___ by _____ congruence rule.	
2.	In ΔABC and ΔXZY, AB = XZ, ∠B = ∠Z = 90 . What is the additional information required to prove the triangles congruent by RHS rule?	
3.	In the given figure, ΔABC ΔPRQ, then find the value of x.	 
4.	In the given figure, ΔABC ΔPRQ, then find the value of x.	 
5.	In ΔABC, AD is the perpendicular bisector of BC. Prove that ΔABC is an isosceles triangle.	
6.	Two line segments AB and CD bisect each other at O. Prove that : (i) ΔAOD ΔBOC (ii) AD = BC (iii) AD BC	
7.	In the given figure prove that: (i) AC is parallel to DE (ii) DB = FC	
8.	The perimeter of a triangle is $x^2 + y^2 + 24xy + 18$ units. Find the third side of the triangle, if the lengths of two of its sides are $4x^2 + 3xy – 15$ units and $2x^2 – 9y^2 + 7xy$ units.	
9.	Simplify and Evaluate the expression if a =2 and b = (– 1): $8a(a – b) + 3a^2 + 7ab$	
10.	What should be added to $a^2 + 2ab + b^2$ to obtain $4ab + b^2$?	
11.	Simplify: $(p^2 + q^2 + 2pq) – (p^2 + q^2 – 2pq)$	
12.	Find the sum of the numerical coefficients in the monomials $–3x^2y$ and $8xy^2$	
13.	Write the coefficient of x in the term $6x^3y^2$	

14.	Write the degree of the expression $2x^3 + 3x^5 + 5x^2$
15.	Write the value of $(17^0)^{12}$
16.	Evaluate: $(2^3 \times 3^3) \div 8^2$
17.	A shopkeeper ordered 800 shirts for ₹ 2,400 each. Find the total price of the shirts. Express the answer in scientific notation.
18.	The length of a rectangle is 2.5×10^2 cm and its breadth is 1.5×10^2 cm. Find the area of the rectangle and express it in standard form.
19.	Express 108×192 as a product of primes in exponential form.
20.	Simplify: $2^{55} \times 2^{60} - 2^{97} \times 2^{18}$