**NOBLE ONYEBUCHI OFFOR**

**19/ENG03/019**

**CIVIL ENGINEERING**

**NO 188**

 **MAT 102 GENERAL ASSIGNMENT (SOLUTIONS)**

1. Using the formula for area of isosceles triangle.

A= X1 = 6 y1 = -5

B= X2 = -2 y2 = 1

C= X3 = 0 y3 = 3

AB= (6+2)2 + (-5-1)2 = 64+36 = 100 = 10

AC= (6-0)2 + (-5-3)2 = 36+64 = 100 = 10

BC= (-2-0) + (1-3)2 = 4+4 = 8 = 2 2

Since AB=AC=BC it is an isosceles triangle because it has two equal sides.

1. Using the formula for internal division;

 P divides QR = x = lx + kx/ l + k

 5 = 14l -4k/ l + k

 5l + 5k = 14l – 4k

 9l = 9k = 1:1

Using formula for external division;

 R divides PQ Y = LY + KY/ L + K

 9 = -3l + -15k / l + k

 9l + 9k = -3l -15k

 12l = 24k ratio of l:k is 1:2.