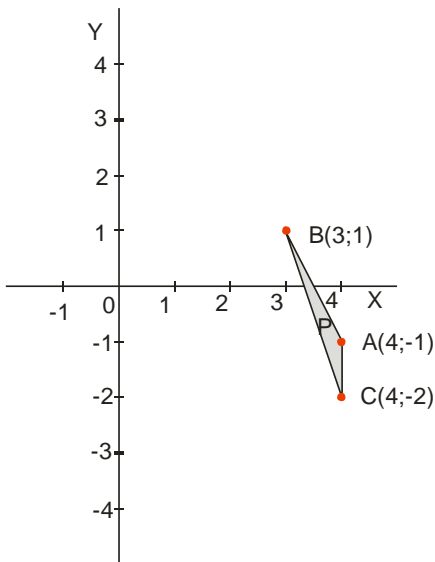


Question #32075

Can you please help about this ..Find the perimeter of triangle with vertices A=4,-1,B=3,1,C=4,-2 Draw the triangle .P=A+B+C ..can you plz help me...

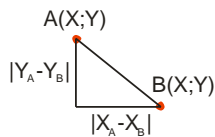
Solution:



The perimeter of triangle is

$$P = |AB| + |AC| + |BC|$$

According to the Pythagorean theorem



$$|AB| = \sqrt{(X_A - X_B)^2 + (Y_A - Y_B)^2}$$

$$|AC| = \sqrt{(X_A - X_C)^2 + (Y_A - Y_C)^2}$$

$$|BC| = \sqrt{(X_B - X_C)^2 + (Y_B - Y_C)^2}$$

$$P = \sqrt{(X_A - X_B)^2 + (Y_A - Y_B)^2} + \sqrt{(X_A - X_C)^2 + (Y_A - Y_C)^2} + \sqrt{(X_B - X_C)^2 + (Y_B - Y_C)^2}$$

$$P = \sqrt{(4 - 3)^2 + (-1 - 1)^2} + \sqrt{(4 - 4)^2 + (-1 - (-2))^2} + \sqrt{(3 - 4)^2 + (1 - (-2))^2} = \sqrt{5} + 1 + \sqrt{10} = 6.4$$

Answer

The perimeter of triangle is 6.4 units.