Answer on Question#53923 – Math – Vector Calculus

1. Given that $\mathrm{P} = (-5, 11)$ and $\mathrm{Q} = (-6, 4)$, find the component form and magnitude of vector $\boldsymbol{QP}$.

Solution.

At first, we will find the components of vector $\boldsymbol{QP}$:

$\boldsymbol{QP} = (-5 - (-6), 11 - 4) = (1,7)$.

And now we can find the magnitude of our vector:

$|\boldsymbol{QP}| = QP = \sqrt{1^2 + 7^2} = \sqrt{50} = 5\sqrt{2}$.

Answer:

hence, $\boldsymbol{QP} = (1,7)$ and $|\boldsymbol{QP}| = 5\sqrt{2}$.