

Name:

Result:

Group A

1.

(4 points)

Determine, if the triangle ABC , where $A(-2, -3)$, $B(1, 1)$ and $C(9, -5)$ is a (a) right (b) isosceles (c) equilateral or (d) scalene. Justify your answer.

2.

(2 points)

Find the coordinates of the remaining vertex of parallelogram $ABCD$, if $A(-2, 7)$, $B(6, 6)$ and $C(5, 10)$.

- 3.** *(2 points)*
Consider points $A(-2, -5)$ and $B(6, 7)$. Find the coordinates of point C on the line segment AB , such that $|AC| : |CB| = 5 : 1$.

- 4.** *(2 points)*
Consider a vector $\vec{v} = \begin{pmatrix} 3 \\ -4 \end{pmatrix}$. Find a vector of length 20, which has the same direction as \vec{v} .