

Answer on Question #58040 – Math – Analytic Geometry

Question

Find the image of triangle ABC, for A(3,3), B(9,3) and C(6,7), after a glide reflection described:

Translation (x,y) maps to $(x,y+1)$; Reflection in $y=1$.

Solution

After translation: triangle ΔABC maps to triangle $\Delta A_1B_1C_1$ with $A_1 = (3; 3 + 1) = (3; 4)$;

$B_1 = (9; 3 + 1) = (9; 4)$ and $C_1 = (6; 7 + 1) = (6; 8)$.

After reflection in $y = 1$ obtain triangle $\Delta A_2B_2C_2$ with $A_2 = (3, -2)$, $B_2 = (6, -6)$ and $C_2 = (9, -2)$.

Answer: $A_2 = (3, -2)$, $B_2 = (6, -6)$ and $C_2 = (9, -2)$.