

Class Discussion

Unit 7 Topic 8 Application of a determinant

Given $\triangle ABC$ with vertices at $A(x_1, y_1)$, $B(x_2, y_2)$, $C(x_3, y_3)$

Area of $\triangle ABC$ can be found $\frac{1}{2} \left| \det \begin{bmatrix} x_1 & y_1 & 1 \\ x_2 & y_2 & 1 \\ x_3 & y_3 & 1 \end{bmatrix} \right|$

Ex 1: find the area of $\triangle ABC$ if $A(0, 0), B(\frac{1}{2}, 1), C(-\frac{3}{4}, 2)$