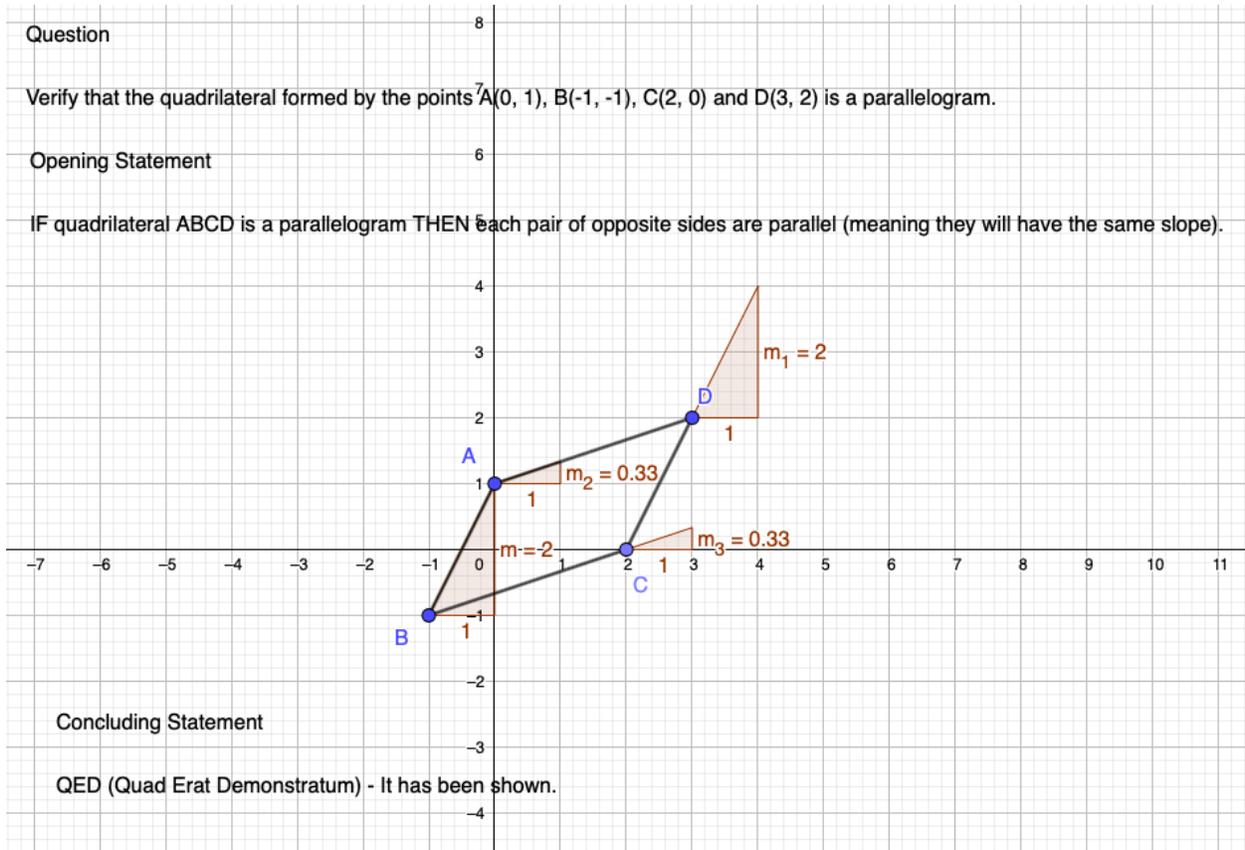


Geometric Proofs Using Software

There are four components to a complete proof. These are:

1. Opening statement - what will I show? (*If... then...*)
2. Accurate construction / diagram
3. Measurements / calculations
4. Concluding statement

Here is an example made using Geogebra:



Let's reproduce this proof now, together.

Go to the [classic Geogebra page](#). Take notes about any key steps for using the software:

Opportunity to Learn

1. Construct a right triangle.
2. Construct a parallelogram.
3. Construct a rectangle.
4. Verify that the quadrilateral formed by the points $W(2, 2)$, $X(4, -1)$, $Y(8, 6)$, $Z(10, 3)$ is a rectangle.
5. Verify that the triangle with vertices $U(4, 3)$, $V(0, 5)$, and $W(4, 3)$ is a right triangle.
6. Verify that the median drawn from the right angle of a right triangle will always be half the length of the hypotenuse.
7. Construct any triangle. Select two sides and construct the midpoints. Verify that the line segment drawn between these two midpoints is parallel to the third side of the triangle and half its length.