

**(A) Lesson Context**

BIG PICTURE of this UNIT:	<ul style="list-style-type: none"> <li>mastery with algebraic skills to be used in our work with co-ordinate geometry (midpoint, length, slope)</li> <li>understanding various geometric properties of quadrilaterals &amp; triangles</li> <li>how do you really prove that something is “true”?</li> </ul>		
CONTEXT of this LESSON:	Where we’ve been You know how to find a midpoint, a length & slope and how to work with Geogebra	Where we are Using length, slope & midpoint in classifying geometric figures	Where we are heading How can I prove various geometric properties of quadrilaterals and triangles?

**(B) Lesson Objectives:**

- Review the properties of quadrilaterals and triangles through geogebra
- Use algebraic methods to classify quadrilaterals & triangles

**(C) Exploring Triangles – through dynamic geometry software: geogebra**

Triangle Type	Constructed Geogebra (record points)	Properties	Confirmed algebraically
Equilateral triangle	A(30,30); B(-41,11), C(11,-41)		
Isosceles triangle	(A3,-1); B(7,1); C(3,4)		
Scalene triangle	A(-1,5), B(8,-2), C(-5,-1)		
Right triangle	A(1,5), B(9,-5), C(-4,1)		
Right isosceles triangle	A(1,5), (8,1), C(-3,-2)		

**(D) Homework/Resources**

[Nelson 10 Chap 2.4 – Classifying Geometric Figures](#), p101-102, Q4,6,7,8,9