Lesson 5: Identical Triangles

Problem Set

Given the following triangle correspondences, use double arrows to show the correspondence between vertices, angles, and sides.

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| **Triangle Correspondence** | $$△ABC\leftrightarrow △RTS$$ |
| Correspondence of Vertices |  |
| Correspondence of Angles |  |
| Correspondence of Sides |  |

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| **Triangle Correspondence** | $$△ABC\leftrightarrow △FGE$$ |
| Correspondence of Vertices |  |
| Correspondence of Angles |  |
| Correspondence of Sides |  |

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| **Triangle Correspondence** | $$△QRP\leftrightarrow △WYX$$ |
| Correspondence of Vertices |  |
| Correspondence of Angles |  |
| Correspondence of Sides |  |

Name the angle pairs and side pairs to find a triangle correspondence that matches sides of equal length and angles of equal measurement.

1. 
2. 



1. Consider the following points in the coordinate plane.
	1. How many different (non-identical) triangles can be drawn using any three of these six points as vertices?
	2. How can we be sure that there are no more possible triangles?
2. Quadrilateral $ABCD$ is identical with quadrilateral $WXYZ$with a correspondence $A\leftrightarrow W$,$ B\leftrightarrow X,$ $C\leftrightarrow Y$,
and $D\leftrightarrow Z$.
	1. In the figure below, label points $W$, $X$, $Y$, and $Z$ on the second quadrilateral.

*A*

* 1. Set up a correspondence between the side lengths of the two quadrilaterals that matches sides of
	equal length.
	2. Set up a correspondence between the angles of the two quadrilaterals that matches angles of equal measure.