NAME:_____

1. Find several pairs of vectors whose sum is zero. What can you conclude about each pair of vectors?

2. Explain how the parallelogram method of adding vectors is like the head-to-tail method.

3. If the opposite of a vector is a vector that is the same magnitude and is parallel to the vector but is in the opposite direction, what do you think is meant by $U - V$? Include an example.

4. Draw any two vectors on the coordinate plane. Then add them using the head-to-tail method, ordered pair notation, and the parallelogram method. Explain which method you prefer.

[1] They are equal in magnitude and opposite in direction.

[2] Check students' work.

[3] $U - V = U + (-V)$, where $-V$ is the opposite of V; check students' examples.

[4] Check students' work.