**Ws Vector Addition**

1. A bird flies 10km north then turns and flies 15 km west find its displacement?
2. If that same bird from question 1 flies east instead of west what would its displacement be?
3. A car drives 8km west then turns and drives 5km south finds its displacement.
4. A person walks 10m south than turns and walks 4m west. Calculate their displacement.
5. A car travels 20km due north to a gas station. It than travels 30 km[W50°S].
   1. Determine the cars displacement for the journey.
   2. In what direction should the car point so as to head straight home?
6. A Kayaker sets out for a paddle on a broad stretch of water. She heads towards the west but is blown off course by a strong wind. After an hour paddling, she arrives at a lighthouse that she knows is 12 km [S45°W] of her starting point. She than paddles 8 km west of the light house. If she plans to get home how far and in what direction must she travel?
7. Slimy the slug travels 5cm 30˚ E of N, then turns and heads 3cm 70˚ E of S, finally slimy travels 4 cm 25˚ N of W. What is Slimy’s displacement?