

1. A spider went on a journey. The spider travelled 2m [N], followed by 3m [E] and then 4m [S30°W]. What is the spider's net displacement for his journey? Organize your thinking in a table and include a diagram please. (8 marks)

2. An old car is stopped at a traffic light on the highway. The car can accelerate at an average rate of  $4.0\text{m/s}^2$ . The posted speed limit is  $90\text{km/hr}$ . (7 marks)
  - a. How long (time) does it take the car to get up to the posted speed limit?

- b. How far does the car travel before reaching the posted speed limit?