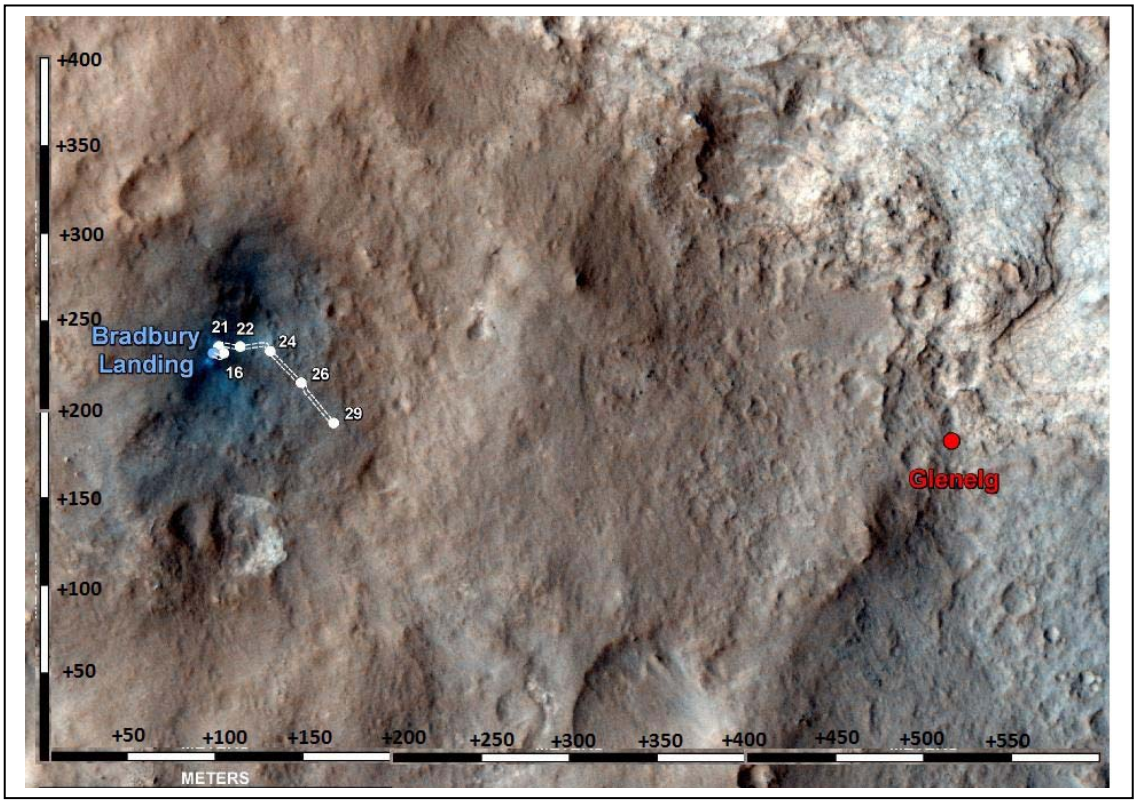

The Curiosity Rover is traveling across the surface of Mars. We can follow its path by recording a series of Way Stations as ordered pairs using the local North-South location as the Y-axis, and East-West as the X-axis. Draw the coordinate grid for the First Quadrant, with units marked every 50 meters from 0 to 500 meters on each axis.

Graph the following Way points:

Day 39:(+210, +180),	Day 48:(+360, +175)
Day 41:(+270,+210),	Day 49:(+390, +180)
Day 42:(+300, +200),	Day 52:(+470, +200)
Day 45:(+315, +165),	Day 56:(+500, +205)

Problem 1 - Along which axis was the change in position the largest?

Problem 2 - How far, in meters, did Curiosity travel between Day 42 and Day 52?

Problem 3 - What was the average speed of Curiosity between Day 42 and Day 52?

Problem 1 - Domain (East to West) = Largest x - Smallest x

= +500 - (+210)

= 290 meters.

Range (north to south) = +210 - (+165) = 45 meters, so it traveled farther along the x-axis (east to west).

Problem 2 - Day 42:(+300, +200), Day 52:(+470, +200). The Y coordinate is the same, so the distance traveled is just the difference in the x-coordinates between the two Way stations:

(+470) - (+300) = 170 meters in the east-west direction.

Problem 3 - The average speed is 170 meters/10 days = 17 meters per day.