

Name: _____ Date: _____

GPS Art – Worksheet

Directions

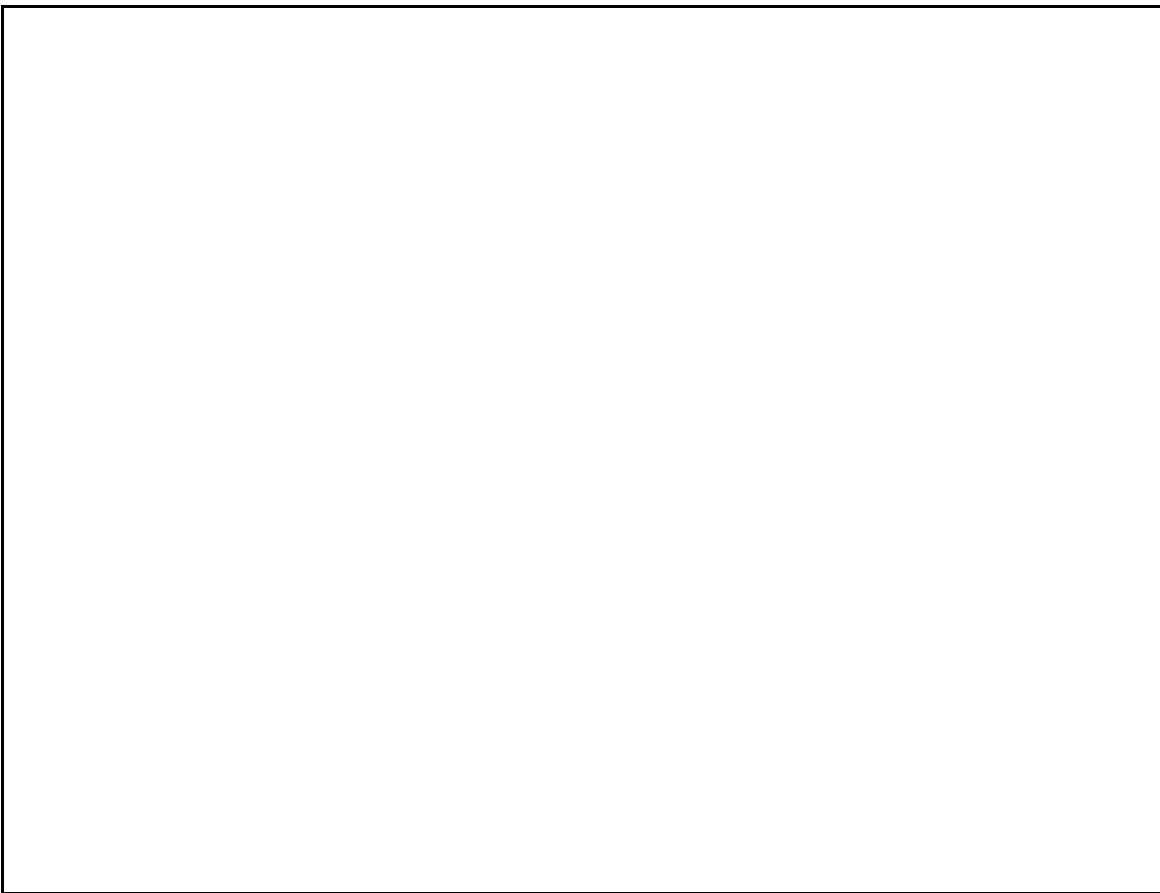
1. In the space below, sketch a single letter or symbol that you would like to draw with your GPS receiver. While drawing your picture, it is important to NOT lift up your pencil or pen because GPS receivers continuously track the path, and you cannot break the path in one picture. For example, a capital “W” is simple, and a small “i” is not so easy because there is a break between the single line and the dot of the “i.” Straight lines are much easier to follow than curves.



2. Orient the graph (picture) in the direction of the open field/playground where you carry out this activity. Determine the direction of each line segment in your picture and label it accordingly.
3. Turn on your receiver, and mark a waypoint. Walk straight down the field while the GPS receiver is drawing your path. Stop as soon as the path drawn on the screen is as long as the screen, from top to bottom. Write down that distance here: _____. That will be your maximum vertical distance (meaning that if you are drawing a T, the long

part of the T can be a maximum of the length you wrote). If your screen is a square, the distance across your screen from left to right is your horizontal maximum distance. The same would be true if your screen is a rectangle.

4. Now, determine a scale for your picture according to the measurements based on your receiver's screen size. (Note: make each square on your graph represent a 1-meter by 1-meter square.)
5. Start at the beginning of your picture (where your pencil or pen FIRST touched the graph paper), and mark that as your first waypoint. Walk to the end of that line segment and mark it with another waypoint. Turn and follow the next segment, marking the end with another waypoint. Follow this method until your picture is complete!
6. Now, draw your picture as it appears on the display of your GPS receiver.

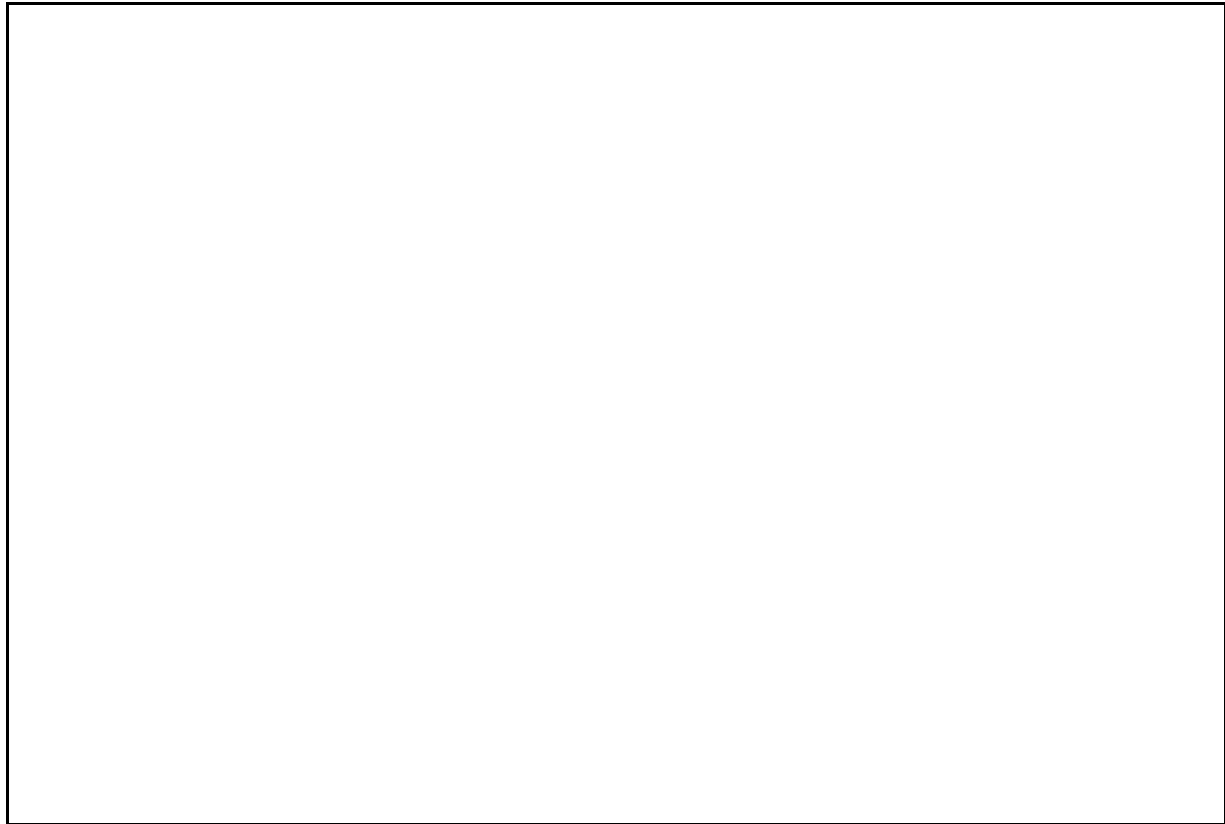


How does it look compared to your initial picture? What did you change and why?

How well do the corners and edges meet on your GPS receiver?

6. Now, put your waypoints together in a route and try to retrace your picture according to the directions on the receiver. Does it work? _____

Draw that picture here.



7. What causes the difference between each picture?

8. What does this tell you about GPS in general?
