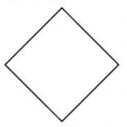
Write definitions for distance and displacement in the blanks below.

- 1. Distance ____
- 2. Displacement -

*You may leave direction out of your answers for displacement for the rest of the worksheet.

 The typical baseball diamond is a square 90 ft long on each side.
 Suppose a player hits a homerun and makes one complete trip from home plate, around the bases, and back to home plate.

Complete the table by finding the player's distance and displacement as he rounds the bases. Include the proper units. All angles are right angles. (Hint: You may need Pythagorean's theorem for 2nd base.)



	at home plate	at 1st base	at 2nd base	at 3rd base	back at home
distance	2.				
displacement					



A runner at a track meet completes exactly one lap around a 400 m track.

distance = _____

displacement = _____

5. The runner completes exactly 2 laps around a 400 m track.

distance = ____

displacement = _____

6. For any object in motion, distance is always ______ displacement.

A. less than

C. equal to

E. greater than

- B. less than or equal to
- D. greater than or equal to

(over)

listance =	_ /
displacement =	
A swimmer swims a half lap, moving from	the left end to the right end of a pool that is 50 meters long.
	distance =
	displacement =
A swimmer swims an entire lap, moving fi that is 50 meters long.	rom the left end to the right end and back again to the left end in
mat is 50 meters long.	
	distance =
	displacement =
For a typical day in your life, from the tim ned at night, estimate the following:	e you get out of bed in the morning to the time you climb back int
oed at night, estimate the following: distance =	displacement =
oed at night, estimate the following: distance =	displacement = red in your lifetime. Is it n to reduce this distance to zero?
Deed at night, estimate the following: distance = Think of the total distance you have cover possible for you to move in some direction	displacement = red in your lifetime. Is it n to reduce this distance to zero?

