

Choose 5 questions to answer; For each of the 5 draw a picture to illustrate or explain how you would solve for the distance and the displacement. What are the values of Distance and Displacement for the following?

1. A student walks 300m East, 200 m West, and then 300m East.
2. A student walks 100m East, 300m West, and then 50m East.
3. A student walks 100m East, 200m North, 100m West, and 200m South.
4. A cross-country runner leaves the school, runs for 10,000 m, and then returns to the school.
5. A student runs 16 laps on the track, ending at the same place she started.
6. A student walks half the circumference of a circle that has a radius of 200m.
7. A student walks the complete circumference of a circle that has a radius of 200m.
8. A student walks the complete circumference of a circle that has a radius of 770m.

Physics, Speed and Velocity

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Name: _____

Choose 3 problems to solve. Show your givens, formula, work, and answer with units of measurement. Complete the following using the equation $s = \frac{d}{t}$

- In the Summer 2012 Summer Olympics, Usain Bolt won the 100 m race in 9.69 s and the 200 m race in 19.30 s. What was the average speed for each race?
- A high school athlete runs 100 m in 12.20 s. What is the average speed in m/s and mi/hr?
- A high speed train travels from Paris to Lyons at an average speed of +227 km/h. The trip takes 2.0h. How far is Lyons from Paris in km?
- Daytona Beach is 390 mi from Suwanee, GA. You drive 70 mi/hr and your friend drives 78 mi/hr. How long does your friend wait for you at the beach?