Distance and Displacement

Calculate the distance and displacement in the following situations:

1. David walks 3km north, then turns and walks 3km east.

2. Rocky runs 202m south, then turns around and runs 3 km north.

3. Morty ran exactly 2 laps around a 400m track.

4. Derrick the zombie crawls 4.0 metres north then turns west and crawls 6 metres.

5. Edward runs 30.000 metres north, 30.0 metres west, and then 30.00 metres south.

6. James runs in a circle 1.00m wide once.

7. Cassidee walks half a lap of a semi-circular track that has a radius of 46.7m.

8. Tara walks 2km from her door to the park, then returns home to her door.

9. Sandy ran 3 blocks North, and then 2 blocks West (1 block = 0.50km).

10. Neva swam 3 complete laps in a 50.0 metre pool (1 lap is to the other side and back).

11. Billy-John flies east for 201m, turns West and flies for another 206.54m before crashing into a flock of geese.

12. Cameron flies south for 13.0 km, turns east and flies for another 30.00 km before crashing into a building.

13. Moira flies west for 555m, turns east and flies for another 605.32 before crashing into Alex.

14. Mona flies north for .302m, turns and flies in a semi-circle back to her original point before crashing into Marissa.

15. A Tusken Raider chases a Tatooine settler three quarters of the way around Mos Eisley (which has a diameter of 1200.1m.