## Science 1206 Worksheet 5: Distance and Displacement

Determine the distance and the displacement of the following.

1. Tina heads out for a run. She runs 800 meters north, turns around, and runs 500 meters south.
2. Miley Cyrus is preparing for a concert. She is practicing sticking her tongue out when she notices that her water bottle is missing. She instantly goes on a rampage yelling at her assistant Claudia. Claudia runs 204 meters to the left of the stage to grab the water bottle. She then runs 189 meters right to bring it to the screaming celebrity.
3. Tony is participating in a treasure hunt. The map tells Tony to travel 65 m north, then 26 m south, then 42 m north and finally 57 m south.
4. An all-star baseball player hits a homerun. He has to run all the bases and make it home for the runs to count. Each plate is 40 m apart.

5. A blue jay is looking for supplies to build his nest. He travels 20 km north, 58 km south and finally 14 km north until he finds all he needs.
6. A motorcycle travels $200.0 \mathrm{~km}[\mathrm{~N}]$ and then $350.0 \mathrm{~km}[\mathrm{~S}]$ in 3.0 h . Calculate the following:
a) distance the motorcycle travelled
b) displacement of the motorcycle
7. George of the Jungle swings $125 \mathrm{~km}[\mathrm{~W}]$ and then $275 \mathrm{~km}[\mathrm{E}]$ in 12 h . Calculate the following:
a) distance
b) displacement
