Physics 100 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Notes and Practice: Converting Between Units

Example Problem: A car is traveling with a speed of 55mph. What is its speed in m/s?

Why does this method work?

Some basic conversions:

1m/s = 2.24mph 1 foot = 0.305m 1km = 0.62miles 1m = 100cm

1 inch = 2.54cm 1km = 1,000m 1gallon = 128 fluid ounces 1 gallon = 4 quarts

1 mile = 5280 feet

1. 8 feet = \_\_\_\_\_\_\_\_ m

2. 15m = \_\_\_\_\_\_\_\_ feet

3. A 5km race is \_\_\_\_\_\_\_\_\_\_ miles long.

4. A 23.6 mile marathon is \_\_\_\_\_\_\_\_\_ km long

5. 16m/s = \_\_\_\_\_\_\_\_ mph

6. 16m/s = \_\_\_\_\_\_\_mph

7. 1 foot = \_\_\_\_\_\_\_\_ cm = \_\_\_\_\_\_\_\_\_ m

8. 7 quarts = \_\_\_\_\_\_\_ gallons = \_\_\_\_\_\_\_\_ fluid ounces

9. 5 hours = \_\_\_\_\_\_\_ days = \_\_\_\_\_\_\_\_ weeks

10. 300 feet = \_\_\_\_\_\_\_\_ mile = \_\_\_\_\_\_\_\_km = \_\_\_\_\_\_\_\_ m

11. 5m = \_\_\_\_\_\_\_\_\_ cm = \_\_\_\_\_\_\_\_\_ inches = \_\_\_\_\_\_\_\_\_ feet