Practice 8.1 US System and Dimensional Analysis

Name_____

Convert the length as indicated.

1) 144 inches to feet

2) 26,400 feet to miles

3) $6\frac{1}{2}$ feet to inches

Convert the capacity as indicated.

4) 92 quarts to gallons

5) 0.3 gallons to ounces

Convert the weight as indicated.

6) 0.75 pounds to ounces

7) 1.59 tons to pounds

8) $14\frac{1}{4}$ pounds to ounces

Convert as indicated. Express the answer in decimal form when needed.

9) 120 inches per second to feet per second

10) 220 feet per second to miles per hour

11) 31 kilometers per hour to miles per hour (Round to the nearest thousandth.)

Solve the problem.

12) A restaurant serves 8 ounces of soup to each customer. How many quarts of soup should be prepared in order to serve 181 customers? (Express the answer as a mixed number.)

13) Jarod calculated the speed of a train to be 35 feet per second. Calculate the speed in miles per hour. Round to the nearest whole number.

14) A cheetah can run at a speed of approximately 68 miles per hour. Calculate this speed in feet per second. Round to the nearest whole number.

1) 12 ft
2) 5 mi
3) 78 in.
4) 23 gal
5) 38.4 oz
6) 12 oz
7) 3180 lb
8) 228 oz
9) 10 ft/sec
10) 150 mi/hr
11) 19.220 mi/hr
12) $45\frac{1}{4}$ qt

13) 24 mi/hr
14) 100 ft/sec