Dimensional Analysis Practice

Use dimensional analysis to convert each rate. Show all of your work and draw a line through the units that cancel. Round your answer to the nearest hundredth.

1. Convert 13 feet per second to miles per hour.

2. Convert 40 miles per hour to feet per second.

3. Convert 150 yards per minute to feet per day.

4. Convert 3.82 meters per second to kilometers per hour.

5. Convert 15 miles per hour to inches per second.

6. Falcons can dive at speeds of up to 318 feet per second. Convert this speed to miles per hour.

7. A cyclist travels 56 miles in 4 hours. What is the cyclist’s speed in feet per minute?
Algebra 1

Dimensional Analysis Homework

Use dimensional analysis to convert each rate. Show all of your work and draw a line through the units that cancel. Round your answer to the nearest hundredth.

1. Convert 25 feet per second to miles per hour.

2. Convert 75 miles per hour to feet per second.

3. The winner of the “Biggest Loser” lost .952 ounce per hour. Convert this to pounds per week.

4. Convert 4.824 meters per second to kilometers per hour.

5. Alex Rodriguez’s new contract is expected to be $30,000,000 per year. Convert this to dollars per minute.

6. It costs $.001 per hour for electricity to run a light bulb. Find the cost per month.

7. A giraffe can run 32 miles per hour. What is this speed in feet per second?
Algebra 1

Answers to Dimensional Analysis Practice

1. 8.86 mi/hr
2. 58.67 ft/sec
3. 648,000 ft/day
4. 13.75 km/hr
5. 264 in/sec
6. 216.82 mi/hr
7. 1232 ft/min

Answers to Dimensional Analysis Homework

1. 17.05 mi/hr
2. 110 ft/sec
3. 10 lb/wk
4. 17.37 km/hr
5. $57.08/min
6. $.72/mo
7. 46.93 ft/sec