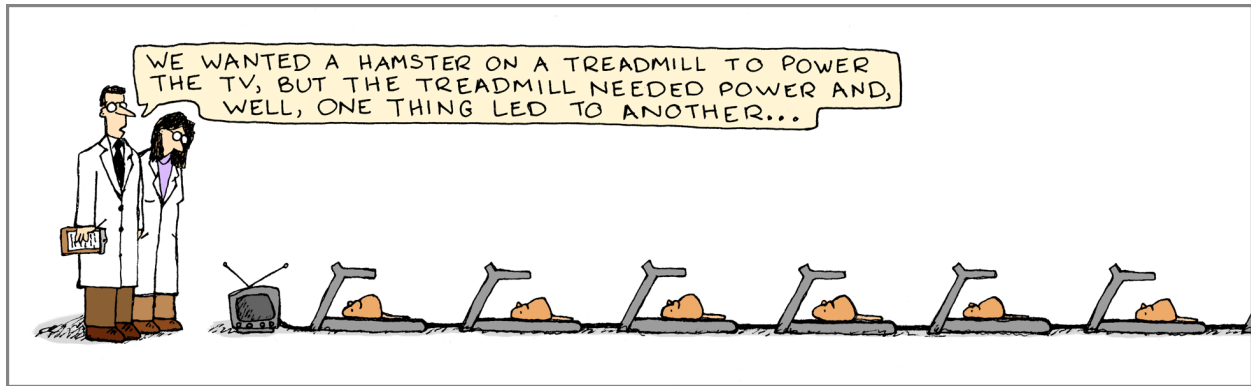


Renewable Energy Math Worksheet

Name: _____



1. Biomass accounts for approximately 14% of all fuel consumption in the world. What fraction of all fuel consumed is biomass?

2. In a developing country, most of their biomass fuel comes from wood ($\frac{1}{4}$), crop residues ($\frac{1}{3}$) and animal waste ($\frac{1}{8}$). What is the *total* fraction, decimal, and percentage amount from these three sources?

3. Suppose you are interested in incorporating several solar energy concepts into your home. You are told that you can save approximately $\frac{1}{5}$ on basic electric costs and an additional $\frac{1}{3}$ on heating costs.

A. What fraction of your utility bill will you save by using solar heat?

B. If your monthly utility bill is approximately, \$125.00, how much money could you save on your bill each month?

4. If wind turbines were installed in the Great Plains, along coasts, and in windy areas, wind energy could fulfill 20% of the U.S. energy need. What fraction of the U.S. energy need **wouldn't** be filled?

5. Only 7.5% of the energy consumed in the U.S. is renewable energy, and 40.8% of the energy consumed in the U.S. is petroleum gas. What fraction of the total energy used in the U.S. is renewable energy and what fraction is petroleum?

6. In percent, how much more Petroleum is consumed than renewable energy?

7. If energy efficient light bulbs use 75% less energy, what fraction of energy is wasted by a traditional light bulb?