



Lesson 2

Today you will be calculating the difference between renewable and non-renewable energy using ratio and proportion

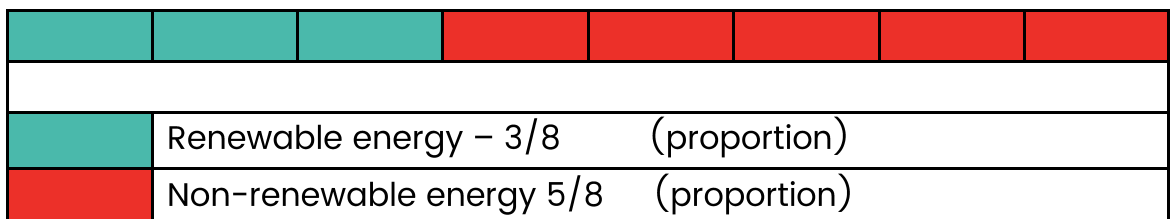
List a number of renewable and non-renewable energy sources.

Renewable	Non-Renewable

Let's assume renewable energy is being used nationally at a ratio of 3:5 compared to non-renewable.

The ratio is a part to part comparison and specifies how many parts relate to renewable energy and how many parts relate to non-renewable energy.

3:5



What would a Renewable energy to non-renewable energy with a ratio of 3:7 look like?

What would a renewable energy to non-renewable energy with a ratio of 2:5 look like?

Effectiveness of wind energy, solar energy and hydroelectric energy with a ratio of 3:6:4

If the use of renewable energy nationally is increasing and the ratio compared to non-renewable energy is now considered to be 6:9, how else could this ratio be expressed?

Energy generate from wind power compared to solar energy can be expressed using the ratio 9:15. How else can this ratio be expressed?

The rate of energy produced from hydroelectric power, solar panels and wind turbines can be expressed using the ratio 4:8:10. How else can this ratio be expressed?

Coal fired power stations use 4 units of energy per minute compared to wind turbines which use 2 units of energy per minute.

Coal	Coal	Coal	Coal
Wind		Wind	

If wind turbines have used 12 units of energy, how many have coal fired power stations used?

Energy Company A gains 5 new customers per minute compared to Energy Company B who gain 3 new customers per minute. How many customers will both companies have gained after 8 minutes?

The proportion of Government spending used on renewable energy is $\frac{3}{4}$ compare to non-renewable energy. What ratio can be used to express the relationship between Government spending on renewable and non-renewable energy? Explain how you know.

Extra Questions

Compare the amount of money your family spends on gas : electricity and express this as a ratio in its simplest form.

Help prepare a meal at home and express the time taken to prepare vs the time taken to consume as a ratio.