

## Energy Savings Logic Puzzle

Four students have organized energy saving techniques in 4 different rooms. Each student has a different technique and a different room. Use the clues below to match the student, technique, and room.

Clue 1: Either student 3 or the energy star appliance technique are in the living room.

Clue 2: Student 2 is in the kitchen.

Clue 3: Student 4, the living room, and the energy star technique are all separate.

Clue 4: LED lights are either used by student 1 or are used in the bathroom.

Clue 5: Of the programmable thermostat and the use of energy star appliances, one is in the living room and one is in the laundry room

		Students				Energy Saving Technique			
		1	2	3	4	Turn off lights	Use LED lightbulbs	Programmable Thermostats	Use Energy Star Appliances
Room	Living Room								
	Kitchen								
	Bathroom								
	Laundry Room								
Energy Saving Technique	Turn off lights								
	Use LED Lightbulbs								
	Programmable Thermostats								
	Use Energy Star Appliances								

Hint: place an X in any box that cannot be true and a star in any box that must be true. Anytime a star is placed, X's can be placed in all other boxes in that column and row.

## Renewable Energy Logic Puzzle

Four houses have embarked on renewable energy projects. Use the clues below to match the house, energy project, and year. Once solved, the years will show when each type of renewable energy was first adopted for widespread use.

- Clue 1: House 2, 1876, and wind are all separate.
- Clue 2: The project first used in 1876 is either solar or geothermal.
- Clue 3: Either solar or wind was first used in 1890.
- Clue 4: The project first used in 1920 is in house 4.
- Clue 5: Solar was either first used in 1876 or is in house 4.
- Clue 6: The project used in house 1 is not wind.
- Clue 7: Hydroelectric was either first used in 1920 or is used in house 3.

		House				Renewable Energy Project			
		1	2	3	4	Geothermal	Hydroelectric	Solar	Wind
Year	1864								
	1876								
	1890								
	1920								
Renewable Energy Project	Geothermal								
	Hydroelectric								
	Solar								
	Wind								

Hint: place an X in any box that cannot be true and a star in any box that must be true. Anytime a star is placed, X's can be placed in all other boxes in that column and row.

## Professor Powers' Wind Turbine Logic Game

Professor Max Powers has decided to build a wind turbine but doesn't know what style would be best. He enlists the help of 4 students. Each student comes up with a different blade shape and number of blades. They brought him their designs, but he has dropped the folder and needs your help piecing it back together. Use the clues below to match the student, blade number, and blade shape.


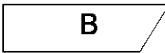


Clue 1: Either Ariel or the turbine with 4 blades has blade shape B

Clue 2: Wendy designed blade shape A

Clue 3: Wattson's design, the design with 4 blades, and blade shape D are 3 different designs.

Clue 4: Of the designs with 4 blades and design B, one is Ariel's and the other is Wendy's.

Clue 5: Wattson's design has 2 more blades than Ariel's design.

		Students				Number of Blades			
		Wendy	Wattson	Ariel	Joulien	2	3	4	5
Blade Shape	 A								
	 B								
	 C								
	 D								
Number of Blades	2								
	3								
	4								
	5								

Hint: place an X in any box that cannot be true and a star in any box that must be true. Anytime a star is placed, X's can be placed in all other boxes in that column and row.

Example 1: when a star is placed based on the clues, X's can be placed in all the other boxes in the row and column

	-	=	≡	≥	1	2	3	4
A		X						
B		X						
C	X	☆	X	X				
D		X						
1								
2								
3								
4								

Example 2: Completed puzzles should look like this.

	-	=	≡	≥	1	2	3	4
A	X	X	X	☆	X	X	☆	X
B	☆	X	X	X	☆	X	X	X
C	X	☆	X	X	X	☆	X	X
D	X	X	☆	X	X	X	X	☆
1	☆	X	X	X				
2	X	☆	X	X				
3	X	X	X	☆				
4	X	X	☆	X				

# Energy Unit Conversion Puzzle

People in the energy industry frequently have to convert from one energy unit to another. For example, there are 0.000947 BTUs (British Thermal Units) in one Joule. Use the following logic puzzle to determine how many BTUs there are in one kWh.

This four-digit number is composed of two pairs of sequential numbers. If you transpose the two pairs, all four digits will be sequential. The last two numbers equals the product of the first two numbers and the sum of all digits equals the base of the metric system.