**Unit 4 – Thermo: Quiz 1a**

/5

1. The table below has three different hairdryer models. Which is most energy efficient?

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Model A** | **Model B** | **Model C** |
| **Useful Energy** | 450 kWh | 700 kWh | 600 kWh |
| **Energy Consumed** | 520 kWh | 770 kWh | 630 kWh |

1. Natural gas, with the heat content of 1030 BTU/ft3 is used to produce electricity. BTU = a British Thermal Unit.
	1. If 4.5 x 106 ft3 of natural gas is used, and the conversion is 65% efficient, how many kWh of electricity can be generated?

One kWh = 3413 BTU.

* 1. If the electricity produced above is used to power an electric stove that has 79% efficiency, how many BTUs can be delivered by the stove?

Answers:



1. The table below has three different hairdryer models. Which is most energy efficient?

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Model A** | **Model B** | **Model C** |
| **Useful Energy** | 450 kWh | 700 kWh | 600 kWh |
| **Energy Consumed** | 520 kWh | 770 kWh | 630 kWh |



1. Natural gas, with the heat content of 1030 BTU/ft3 is used to produce electricity. BTU = a British Thermal Unit.
	1. If 4.5 x 106 ft3 of natural gas is used, and the conversion is 65% efficient, how many kWh of electricity can be generated?

One kWh = 3413 BTU.



* 1. If the electricity produced above is used to power an electric stove that has 79% efficiency, how many BTUs can be delivered by the stove?



