

Efficiency

There are many types of process which transfer energy.

When energy is transferred, some of the energy turns into forms we don't want. This energy is called wasted energy. Wasted energy takes the form heat and sometimes sound or light.

$$\text{efficiency} = (\text{useful energy out} \div \text{total energy in}) \times 100\%$$

or

$$\text{efficiency} = \frac{\text{output}}{\text{input}} \times 100\%$$

1. What is the efficiency of a crane that uses 5.10×10^6 J of energy to lift 1200 kg to a height of 35m?

2. A light bulb is 7.5% efficient. How much light energy would be provided by a 100 W light bulb in one minute?

Homework...
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