203: Electrical installations technology  
**Worksheet 8: Space heating**

**Answer guide**

Try the following.

1. **In an underfloor heating system, what is a cold tail?**

**The cold tail is the part of the heating mat or cable that does not heat up and is used for making the electrical connections to the thermostat or junction box. It is constructed of three elements: line (brown), neutral (blue) and cpc (yellow and green), and it usually has a black sheath.**

1. **State the two means of heat transference used in space heating.**

**Convection**

**Radiation**

1. **Research what is meant by the term ‘Economy 7’ and describe the benefits for the consumer.**

**Economy 7 is the name of a differential tariff provided by United Kingdom electricity suppliers that uses base load generation to provide cheap off-peak electricity during the night.**

**Houses using the Economy 7 tariff require a special electricity meter which provides two different readings: one for electricity used during the day (priced higher) and the other for the night (priced lower). The night (off-peak) period lasts for a total of seven hours, hence the name; however it may or may not be a continuous period, as it may alternate between the two prices during the night.**

**The first mention of Economy 7 is in 1978: ‘A new off-peak tariff known as the “Economy 7” tariff was introduced in October [1978]. It featured a seven-hour night rate some 20% cheaper than most night-time tariffs, made possible by economies in the night-time operation of the system.’ In more recent years the difference between day and night rates has become much larger, with typically over 50% reduction (though dependent on the supplier). Choice of the Economy 7 tariff results in either or both of an increased standing (fixed) charge or increased daytime rate.**

**(Taken from Wikipedia)**