

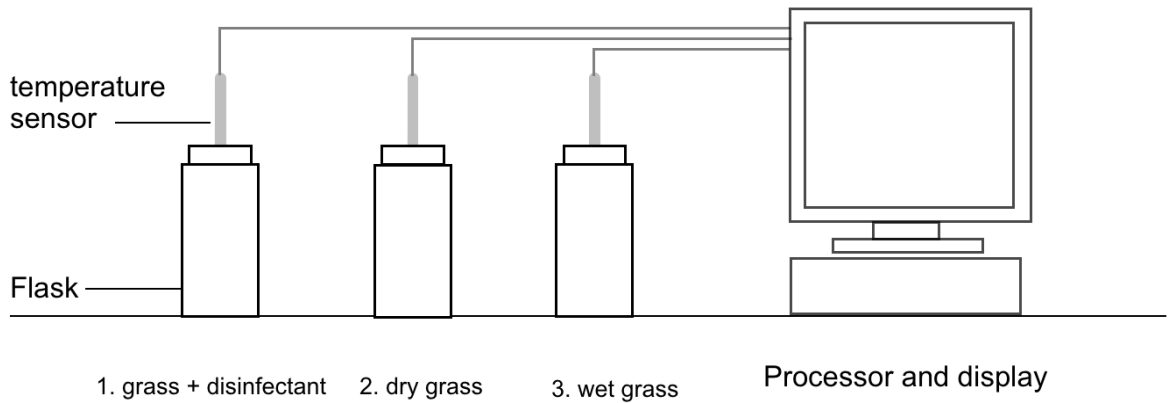
0	1
---	---

A student carried out an investigation into the decay of grass. He placed 200g of grass into each of three thermos flasks. All flasks had air holes in the lids.

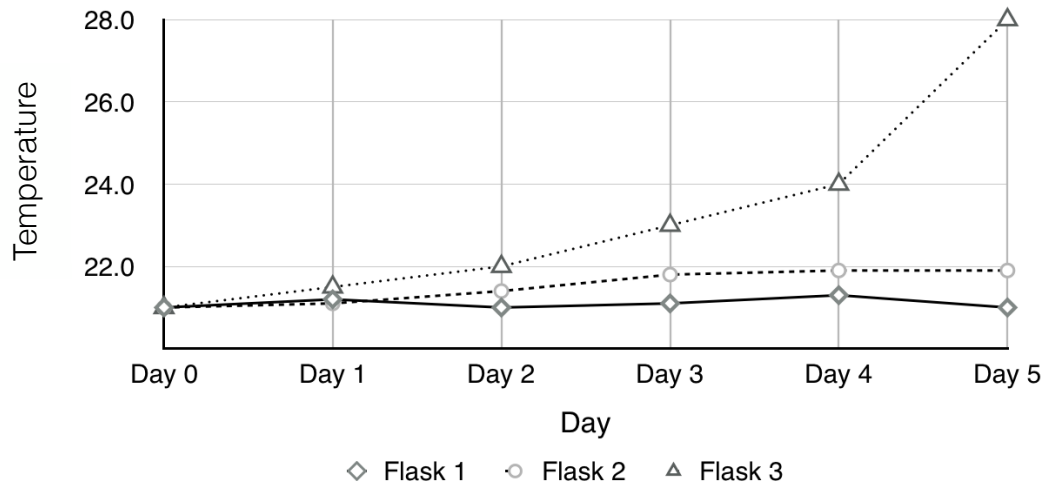
The thermos flasks are good insulators of heat.

The diagram shows the conditions in each of the thermos flasks.

A temperature sensor, connected to a display, was placed into each flask.



Graph 1



Graph 1 shows the results given by the processor and display after monitoring the temperature through the temperature sensors over 5 days.

0	1	.	1
---	---	---	---

Give one advantage and one disadvantage of using temperature sensors connected to a processor and a display to record and display the results.

[2 marks]

Advantage: _____

Disadvantage: _____

0	1
---	---

 .

2

Compare the changes in temperature between **flask 2** and **flask 3** over the 5 days. **[4 marks]**

0	1
---	---

 .

3

Explain the changes in temperature for **flask 3** between day 1 and day 5. **[3 marks]**

0	1
---	---

 .

4

The temperature of flask 1 changed very little. Suggest why. **[1 mark]**

0	2
---	---

 .

The following advice was given on a compost bin:

1. Fill with organic waste (grass cuttings, food scraps etc.)
2. keep air holes clear
3. turn the waste material regularly

0	2
---	---

 .

1

What is the reason for the advice in point 3? **[2 marks]**

0	3
---	---

 .

1

When fresh milk decays the lactose turns to lactic acid and the pH will lower. If you were to investigate the effect of temperature on the rate of the decay of fresh milk state the dependent variable you will use. **[1 mark]**

0	3
---	---

 .

2

State 2 control variables that you will need to have. **[2 marks]**

0	3
---	---

 .

3

Describe how you could use your results to calculate the rate of decay. **[2 marks]**
