Physics video of the week, number 3

The Thermoelectric Effect https://youtu.be/O6waiEeXDGo

I True or false?

Circle the correct answer and justify <u>if it's false</u>

T/F 1 The speaker believed that connecting a wire to a battery would trap the current in a loop.

True – As a child, the speaker hoped to catch the current in a loop by quickly connecting the wire ends.

T/F 2 The thermoelectric effect can create a voltage from a temperature difference.

True – A temperature difference can create a voltage, which is part of the thermoelectric effect.

T/F 3 The speaker explains that heating one end of a wire causes electrons to move apart.

True – Heating one end causes electrons to move apart due to increased thermal energy.

T/F 4 The Seebeck effect is pronounced in all metals equally.

False – The Seebeck effect is more pronounced in some metals and less in others.

T/F 5 A thermocouple is created by joining two similar metals together.

False – A thermocouple is created by joining two dissimilar metals together.

T/F 6 The speaker uses a voltmeter to show that a small current is flowing in the wire loop.

False – The speaker uses a multimeter in ammeter mode to show a small current flowing in the loop.

T/F 7 The Peltier effect is the opposite of the Seebeck effect.

True – It states that applying a current between dissimilar metals can create a change in temperature.

II Translate into English

- ◇ Fil électrique : wire
- ◇ Alliage : allow
- ◇ Chauffer : to heat (up)
- ◇ Refroidir : to cool (down)
- ◇ Dans le sens des aiguilles d'une montre : clockwise
- ◇ Un chauffe-eau : a boiler
- ◇ Une coupure de courant : a power cut