

#### Appendix 4. Let's Make Our Own Thermos

When the weather gets cold, an increase in thermos sales is observed. When purchasing a thermos, customers firstly pay attention to how long it keeps the liquids hot rather than the color, size, and shape of the thermos. The company you work for wants to design a thermos based on these requests of the customers. You are asked to calculate what material the thermos will be made of, and how long the liquids poured in the thermos will remain hot by choosing this material. The material you choose should be easy to find and cost-effective. In this context, answer the following questions.

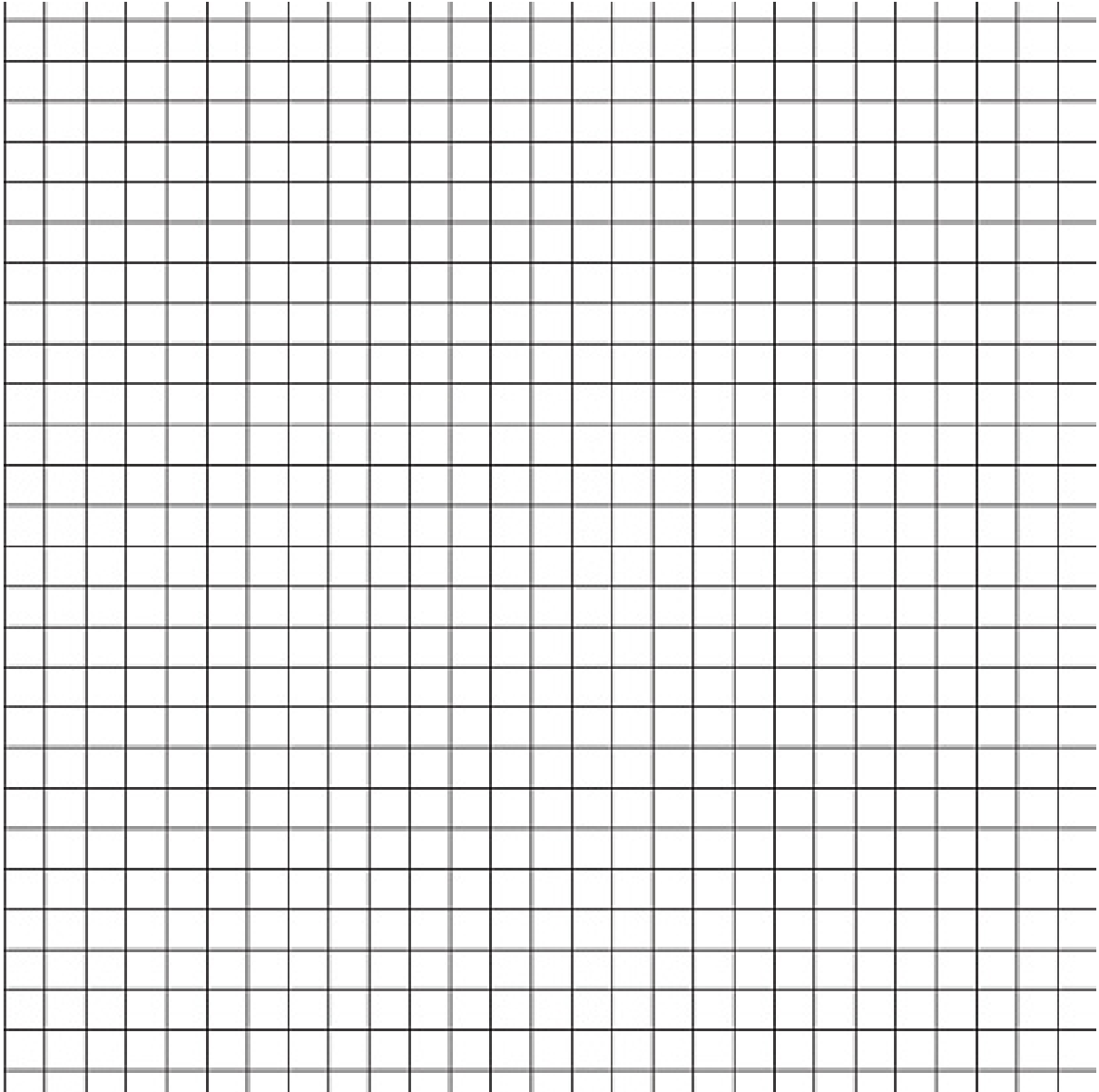


1. Elaborate on which material you chose for the thermos, and why you chose this material.

2. Using the Tinkercad simulation, fill in the table below using the time-varying temperature data.

Temperature	Time

3. Draw the temperature-time graph of the liquid(graph based on lost heat).



4. Write the temperature-time equation of the liquid. (graph based on lost heat)