

Hot coffee anyone?

This task is about interpreting data.

Sua wanted to find out if coffee stayed warmest for longer in a polystyrene cup, a paper cup, or a pottery mug.

She found three cups the same size and shape and put 150 mL coffee at 70°C into each. She left them side by side on a table, and recorded the temperature of each cup every two minutes. Here are her results:

Time (minutes)	Temperature of coffee (°C)		
	Polystyrene cup	Paper cup	Pottery mug
0	70	70	70
2	58	54	60
4	48	42	52
6	40	30	45
8	32	20	40
10	26	20	36
12	20	20	31
14	20	20	27
16	20	20	24
18	20	20	20

a) Which container had the **hottest** coffee after six minutes?

polystyrene cup / paper cup / pottery mug

b) What was the temperature in the polystyrene cup after eight minutes? °C

c) Which container of coffee cooled the **quickest**? *polystyrene cup / paper cup / pottery mug*

d) How long did it take for the coffee in the polystyrene cup to **cool to room temperature**? minutes

e) Sort the materials: polystyrene, paper, and pottery, from **best** insulator to **worst** insulator.