

Average temperature

Suppose you are recording the air temperature at a fixed location over a 24 hour period. You are interested in the average temperature.

1. You record the temperature every four hours and get the data in the following table. What is the average temperature?

Time (hours)	0	4	8	12	16	20	24
Temp ($^{\circ}$ F)	52.0	65.0	65.0	52.0	32.9	32.9	52.0

2. Now suppose you record the temperature every two hours and get the data in the following table. What is the average temperature?

Time (hours)	0	2	4	6	8	10	12	14	16	18	20	22	24
Temp ($^{\circ}$ F)	52.0	59.5	65.0	67.0	65.0	59.5	52.0	41.0	33.0	30.0	33.0	41.0	52.0

3. Suppose now that you record the temperature continuously and record the data in the following graph. What is the average temperature?

