



Problem of the Week

Problem B

Fishing for Thermoclines

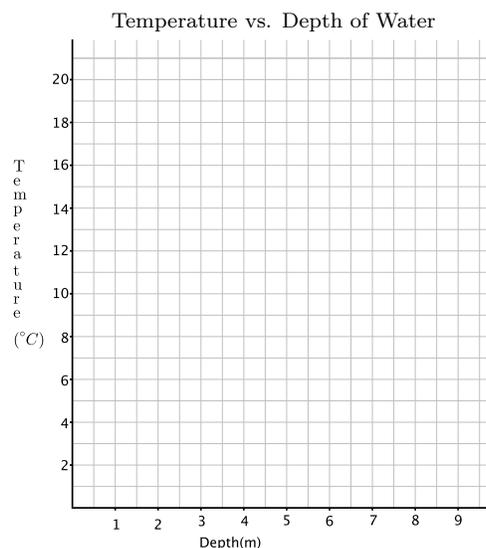
Paige is headed to Lac Nilgault to do some fishing for lake trout and pike. She knows that small pike generally like 18°C water, large pike like 12°C water, and lake trout like 10°C water.

She measures the water temperature in the lake at different depths, and collects the following data.

Depth m	Temp $^{\circ}\text{C}$	Depth m	Temp $^{\circ}\text{C}$
0.5	20	5	15
1	19	5.5	15
1.5	18	6	15
2	18	6.5	12
2.5	18	7	11
3	17	7.5	10
3.5	17	8	10
4	16	8.5	10
4.5	16	9	9

Plot points to make a broken-line graph to illustrate this data.

- At what depths should Paige be fishing for small pike?
- At what depths should Paige be fishing for lake trout?
- Paige knows that most lakes have a thermocline where the water will rapidly change temperature. At what depth is the top of the thermocline in Lac Nilgault?



STRAND DATA MANAGEMENT AND PROBABILITY

