

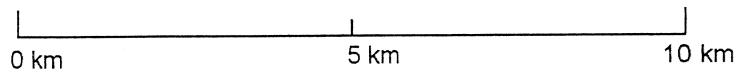
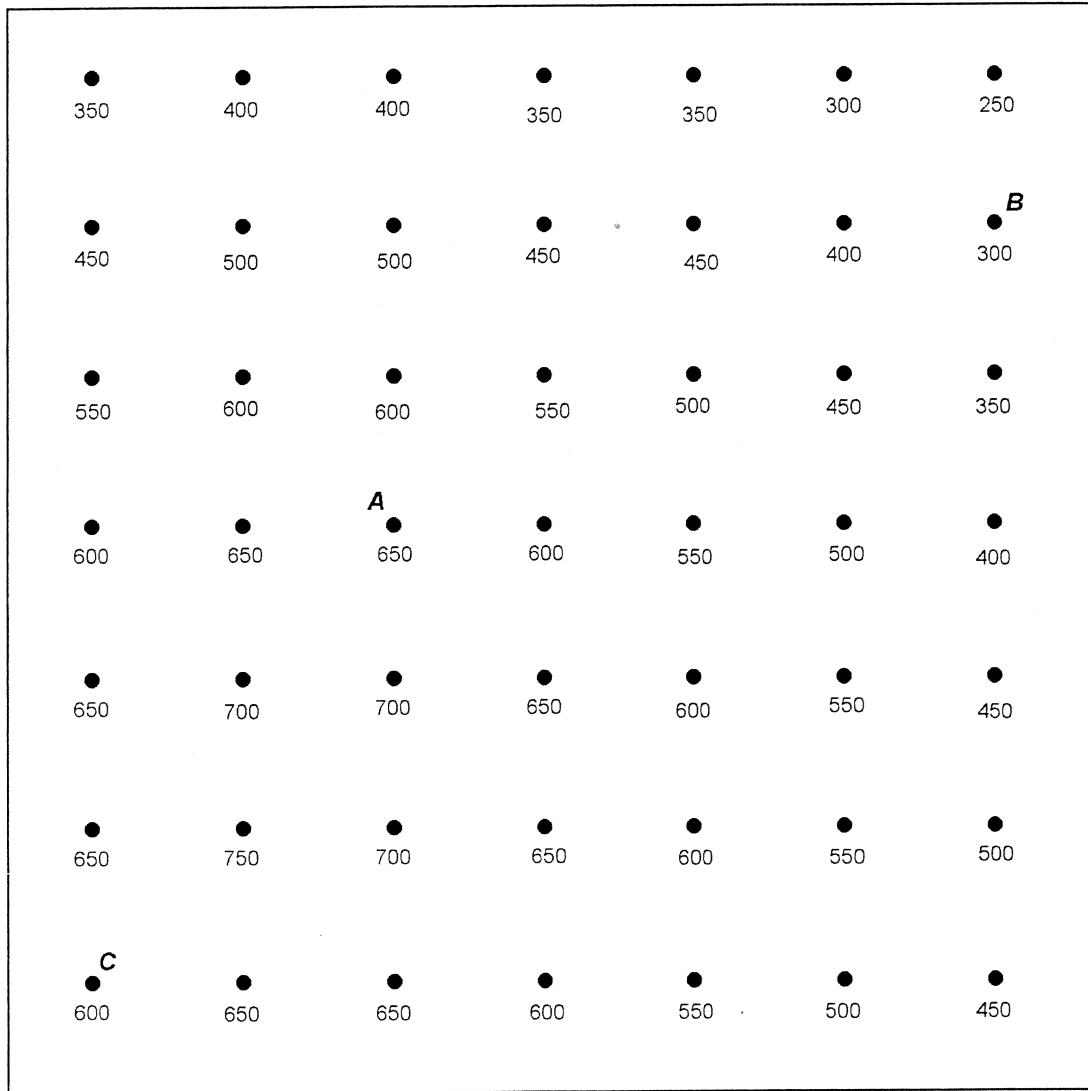
Name \_\_\_\_\_

# Introduction to ISOLINES



## PENCIL ONLY!!!!

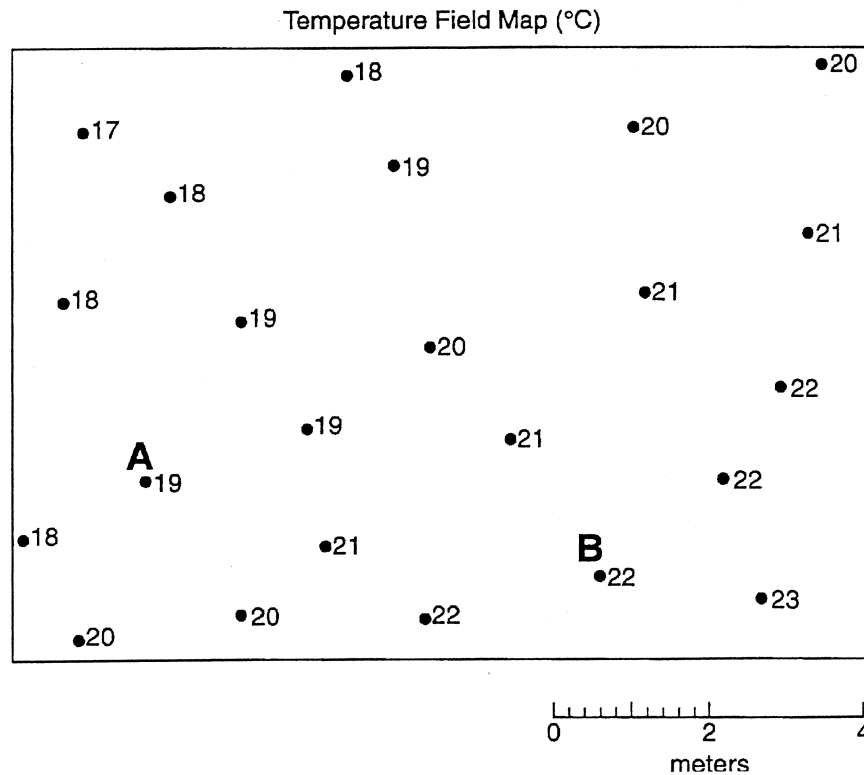
On the field map below connect the points of EQUAL value with a smooth, curved line. You cannot intersect other lines you have drawn. For example, the line connecting the 400s cannot cross over (intersect) with the line connecting the 300s. If a number is missing you may write it in as long as it would be in that location. For example: When connecting the 450s, I would write in 450 between 400 and 500 on the map. This works because 450 is in between 400 and 500 if we were counting. Connect the numbers at a 50 foot interval: 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750. Lines may NOT intersect!



Calculate the gradient from point A to point B.

Calculate the gradient from point A to point C.

Base your answers to questions **6** and **7** on the temperature field map below. The map shows temperature readings ( $^{\circ}\text{C}$ ) recorded by students in a science classroom. The readings were taken at the same time at floor level. Temperature readings for points *A* and *B* are labeled on the map.



**6** On the temperature field map, use solid lines to draw the  $18^{\circ}\text{C}$ ,  $20^{\circ}\text{C}$ , and  $22^{\circ}\text{C}$  isotherms. Isotherms must extend to the boundary of the map. Label each isotherm to indicate its temperature.

**7** Determine the temperature gradient from point *A* to point *B* by following the directions below.

- a* Write the equation used to determine the gradient.
  - b* Substitute values from the field map into the equation.
  - c* Solve the equation and label the answer with the proper units.
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