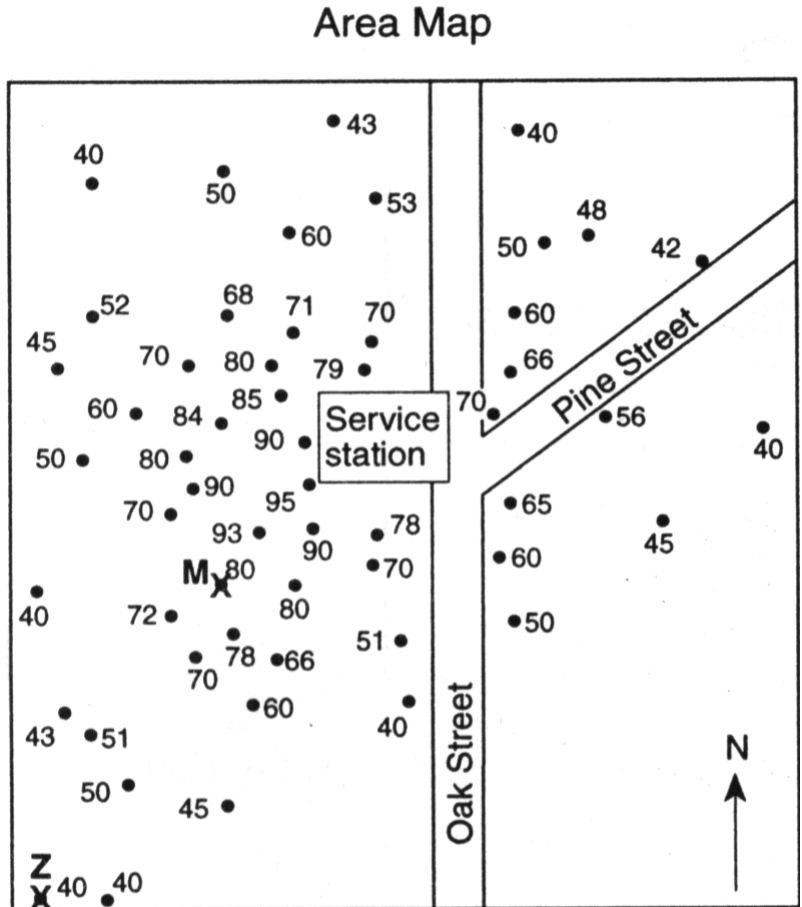
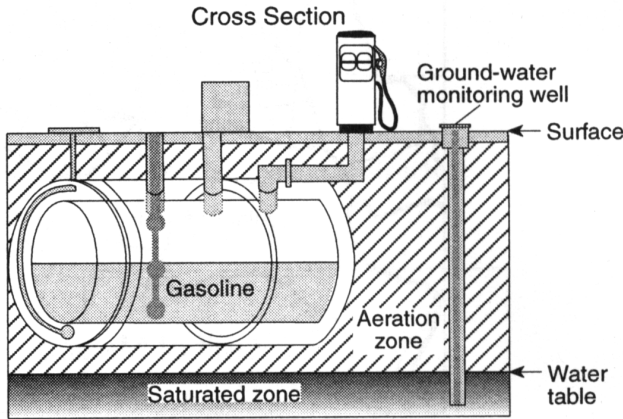


# Topographic Maps Practice

Name \_\_\_\_\_

Class \_\_\_\_\_ Date \_\_\_\_\_

**Directions:** Construct a field map of pollutant concentration on the area map below (50 pts.). Use an isoline interval of 10. Then answer the questions below. The map depicts an underground gasoline storage tank at a service station, which is leaking fuel into the ground water. Ground water monitoring wells were drilled as shown on the area map to determine the pattern of the leakage. The concentration of gasoline, in parts per million, at each well is indicated. The cross-section shows the storage tank's features and a ground water monitoring well.



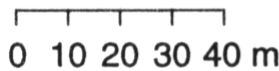
- \_\_\_ 1. The field value for this map is
  1. elevation.
  2. pollution concentration.
  3. water level.
  
- \_\_\_ 2. The source of the leak is
  1. north of the station.
  2. east of the station.
  3. south of the station.
  4. west of the station.
  
- \_\_\_ 3. Which expression shows the approximate gradient (rate of change in gasoline concentration per meter) from point M to point Z?

1.  $gradient = \frac{(80\text{ ppm} - 40\text{ ppm})}{70\text{ meters}}$

2.  $gradient = \frac{70\text{ meters}}{(80\text{ ppm} - 40\text{ ppm})}$

3.  $gradient = \frac{(80\text{ ppm} - 70\text{ ppm})}{40\text{ meters}}$

4.  $gradient = \frac{40\text{ meters}}{(80\text{ ppm} - 70\text{ ppm})}$



Key  
● Well

4. Draw isotherms on the temperature field map at right (use  $2^0$  intervals).

