8. Gradient is how steep the slope is. It is possible to calculate the gradient of a slope using the formula on page 1 of your reference tables.
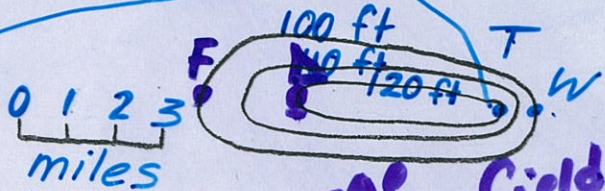
Gradient = change in field value / distance

(subtract) = (120 ft - 100 ft) / 1 mile

(divide) = 20 ft / 1 mile

= 20.0 ft/mile

mi = miles
m = meters
ml = milliliter

100 ft
110 ft
120 ft
F   T
0 1 2 3   W
miles

Gradient = change in field value / distance

= (120 ft - 100 ft) / 2 miles

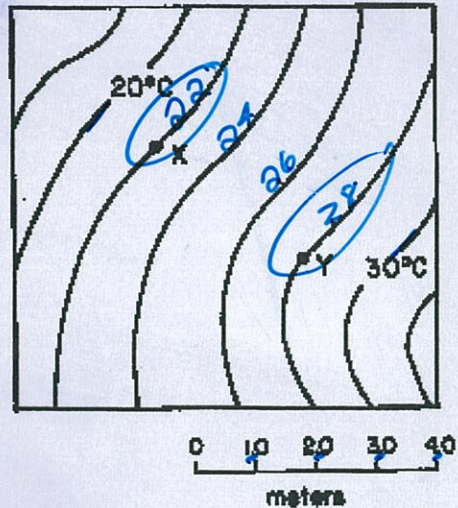= 20 ft / 2 miles

= 10.0 ft/mile

⑭

Base your answer to the following question on the Earth Science Reference Tables.

distance

A stream begins at an elevation of 2,000 meters and ends in a lake at an elevation of 400 meters. The lake is 320 kilometers from the stream's source. What is the average gradient of the stream?

(1) 1.6 m/km   (3) 5.0 m/km
(2) 2.0 m/km   (4) 8.0 m/km

⑮

The diagram below represents a temperature field in degrees Celsius. What is the approximate temperature field gradient between points X and Y? [Refer to the Earth Science Reference Tables.]

20°C 22
    X   24
        26
          28
        Y   30°C

0 10 20 30 40
meters

(1) 0.5 °C/m   (3) 3 °C/m
(2) 2 °C/m   (4) 6 °C/m