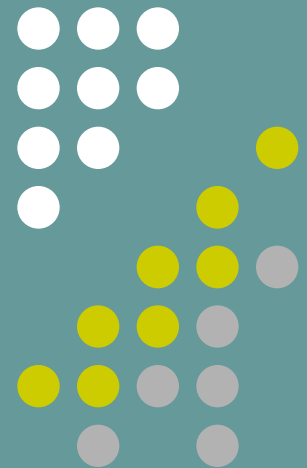


Grade 9 Measuring Map Distance Tutorial

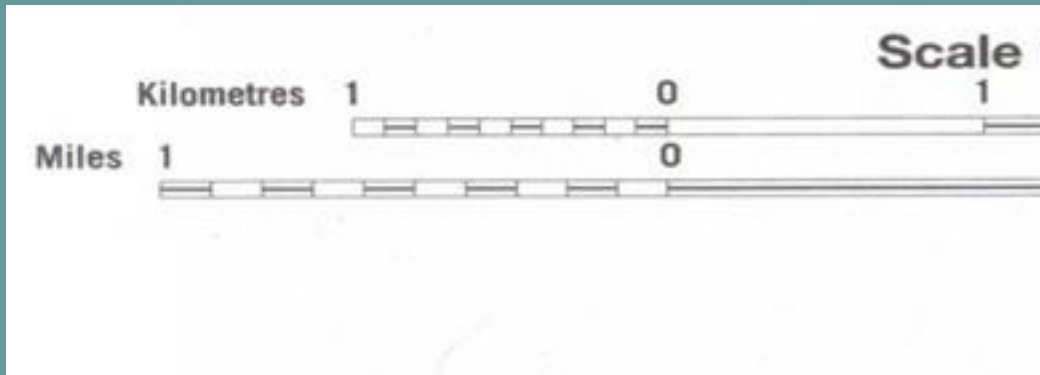


Topographic Maps

Determining Straight Line Distance



In order to find the **STRAIGHT LINE** distance from “A” to “B” you will need a pencil and a piece of paper.



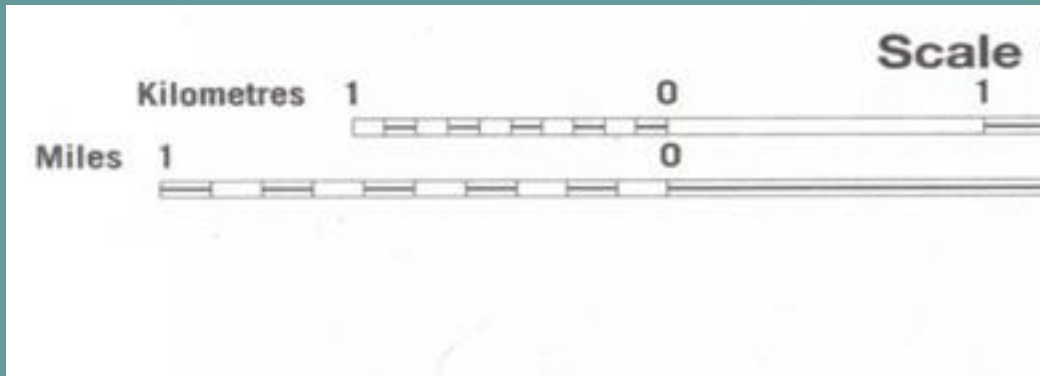
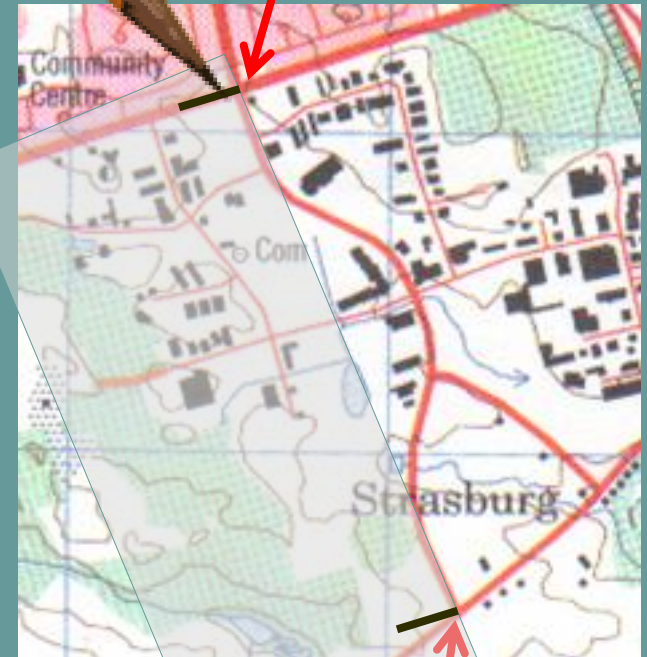
Topographic Maps

Determining Straight Line Distance



Put the edge of the paper over the map so that it passes through both points.

Mark the two points on the paper.



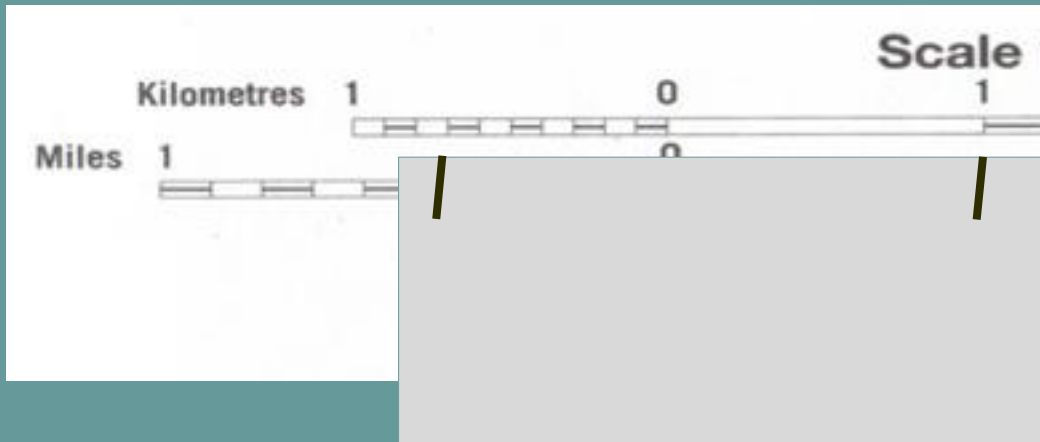
Topographic Maps

Determining Straight Line Distance



Put the paper along the appropriate scale on the map and determine the distance between the marks.

In this example, 1 km (to the right of the "0") and 700 m to the left, for a total of 1700 m.



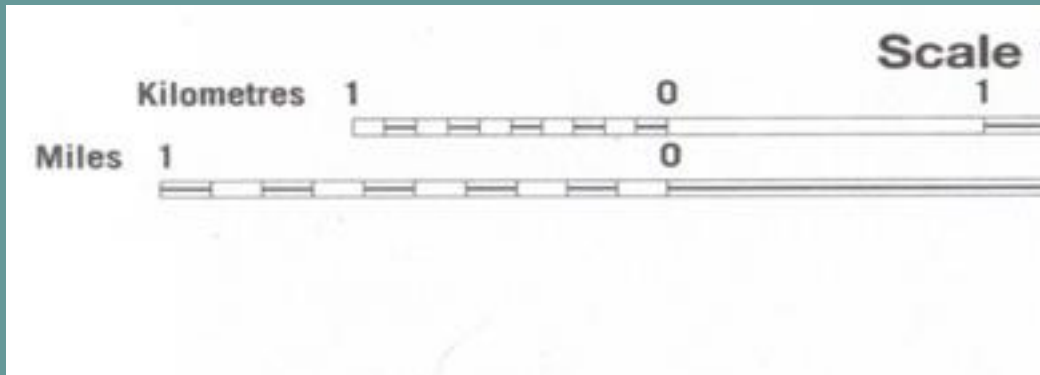
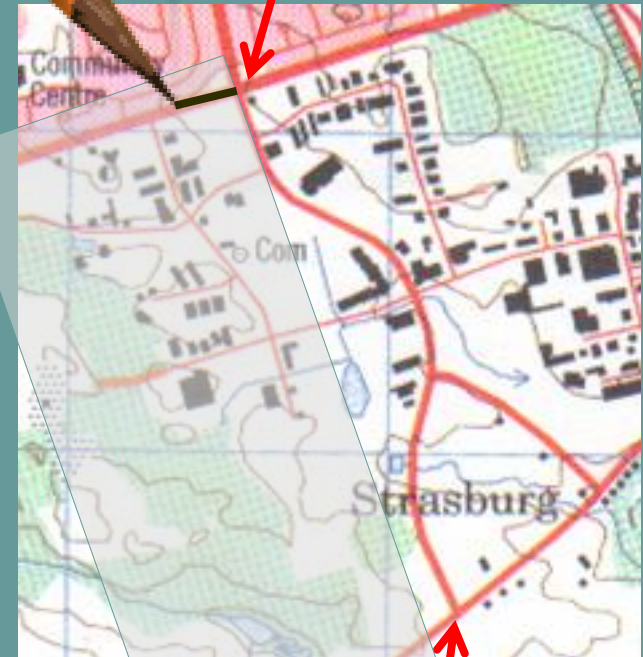
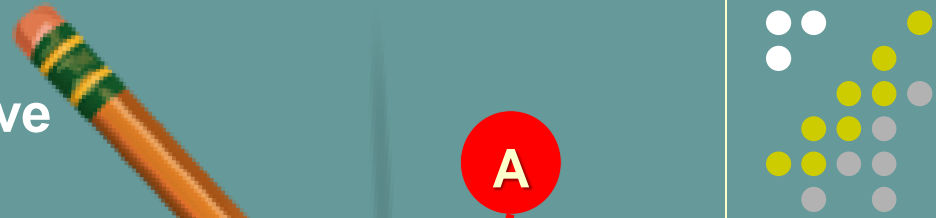
Topographic Maps

Determining Distance Along a Curve

Finding distances along curves is more complicated, but still easy.

Put the edge of the paper over the map so that it aligns with the first segment of the road.

Mark the start point on the paper.

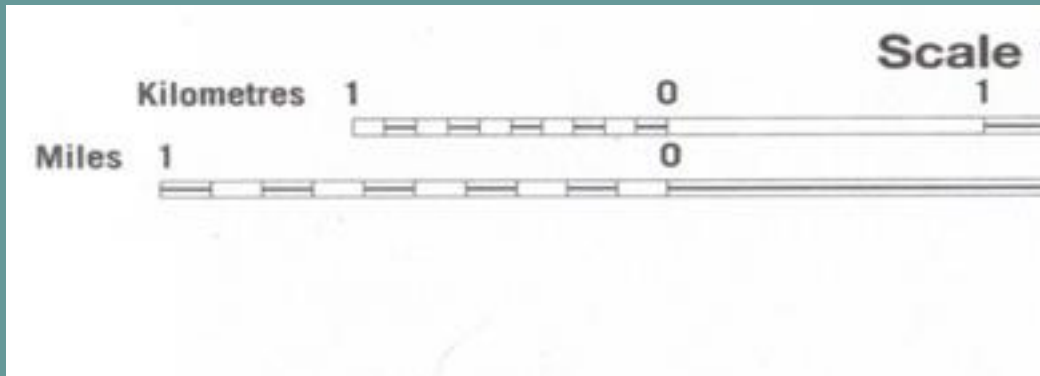


Topographic Maps

Determining Distance Along a Curve

Now mark the furthest point along the edge where it still touches the road.

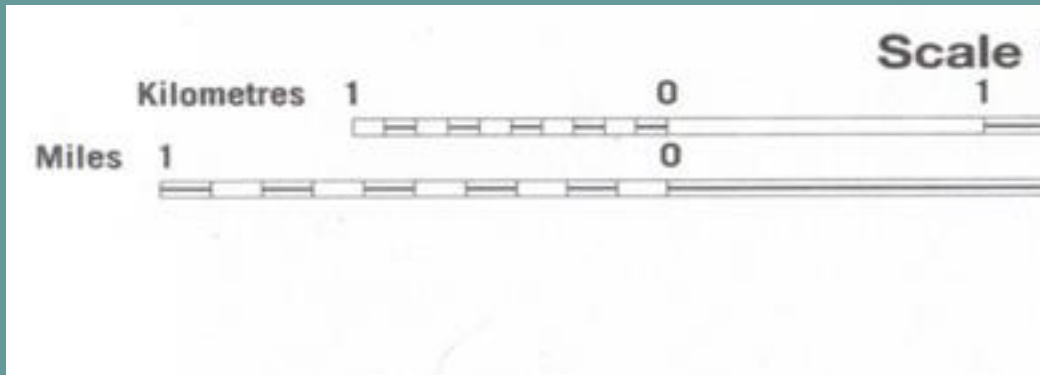
Keep the pencil point pressed against the page and rotate the paper around it...



Topographic Maps

Determining Distance Along a Curve

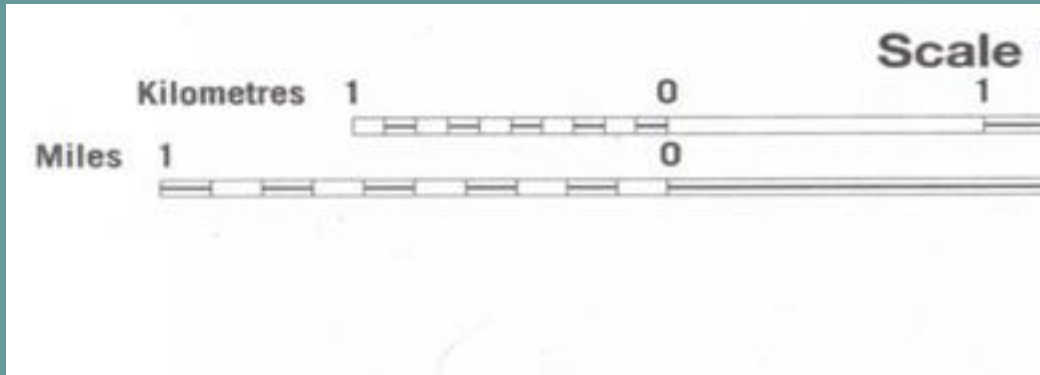
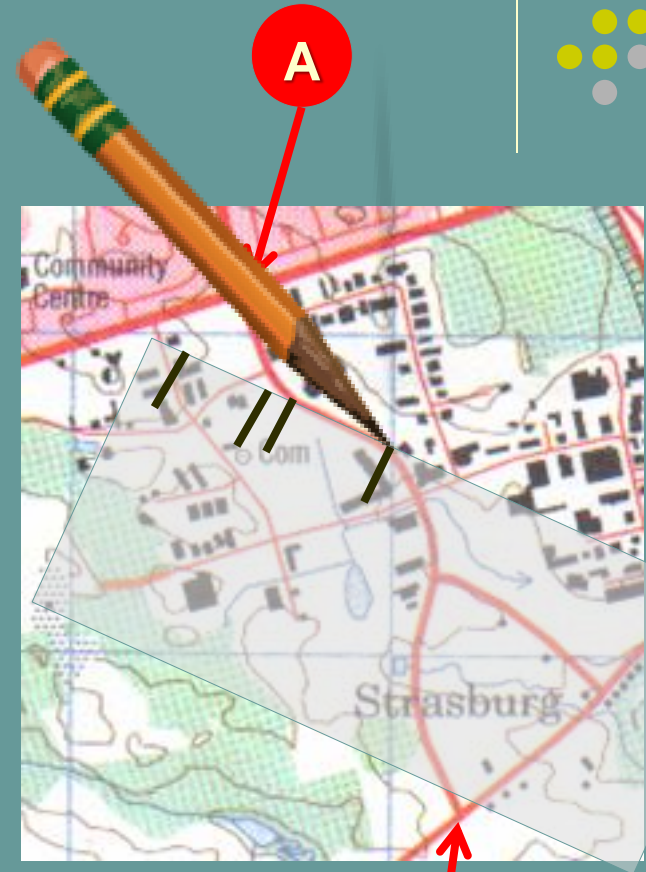
Mark the next point, then repeat the procedure.



Topographic Maps

Determining Distance Along a Curve

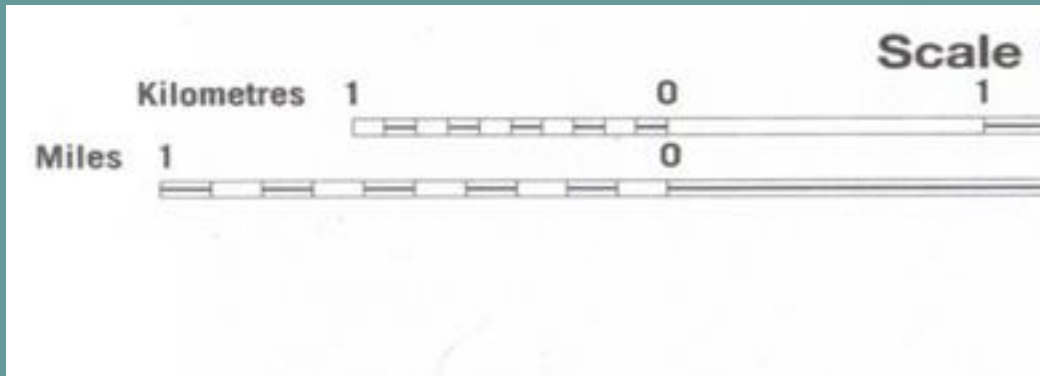
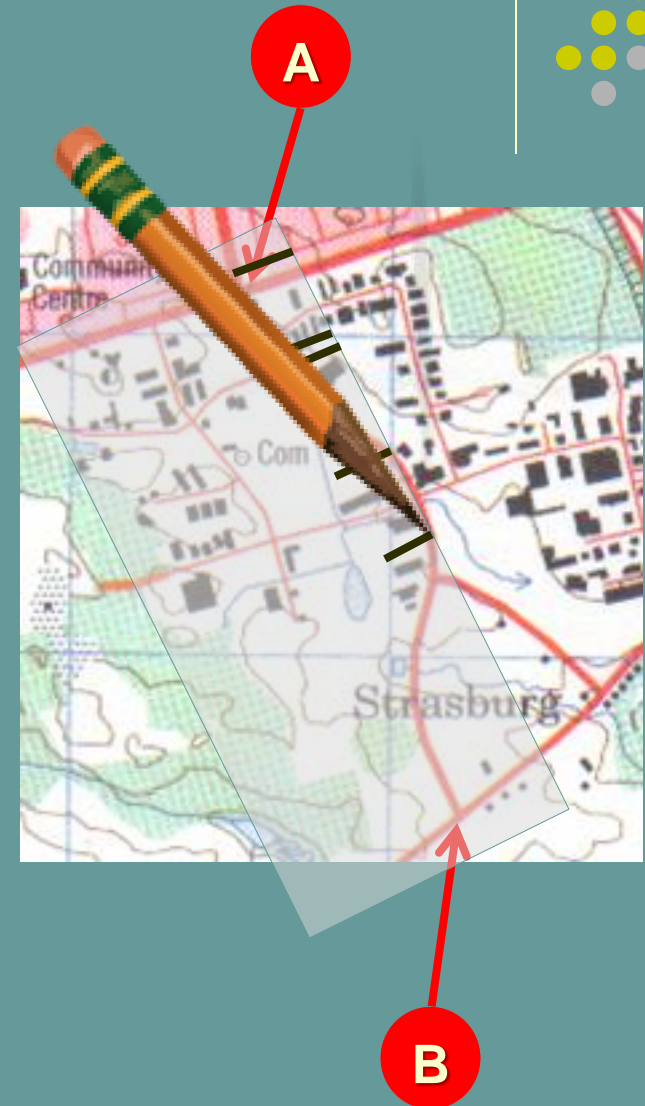
Keep going, turning the paper to align with the road, marking each point as you go.



Topographic Maps

Determining Distance Along a Curve

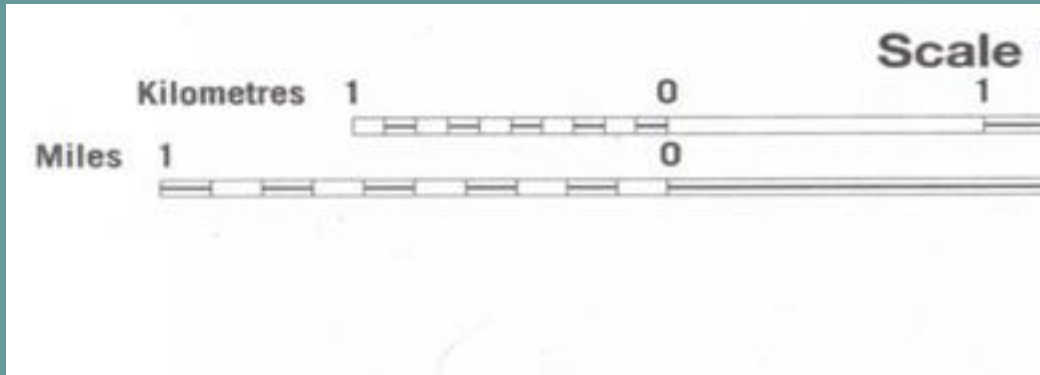
...and again...



Topographic Maps

Determining Distance Along a Curve

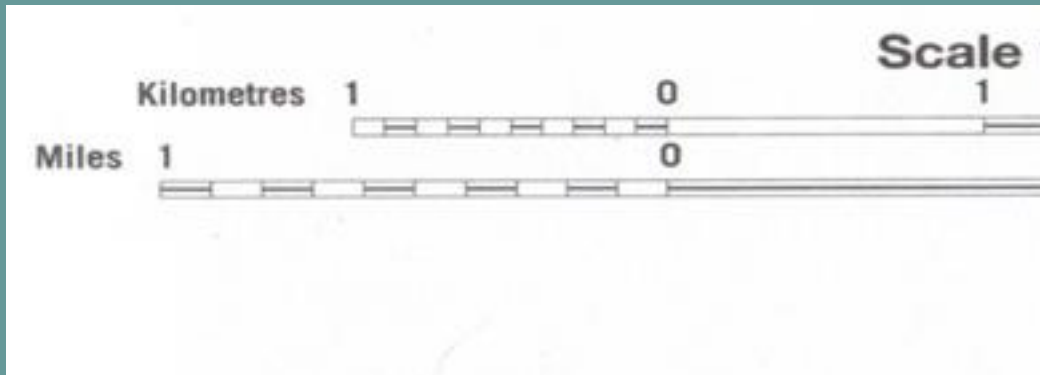
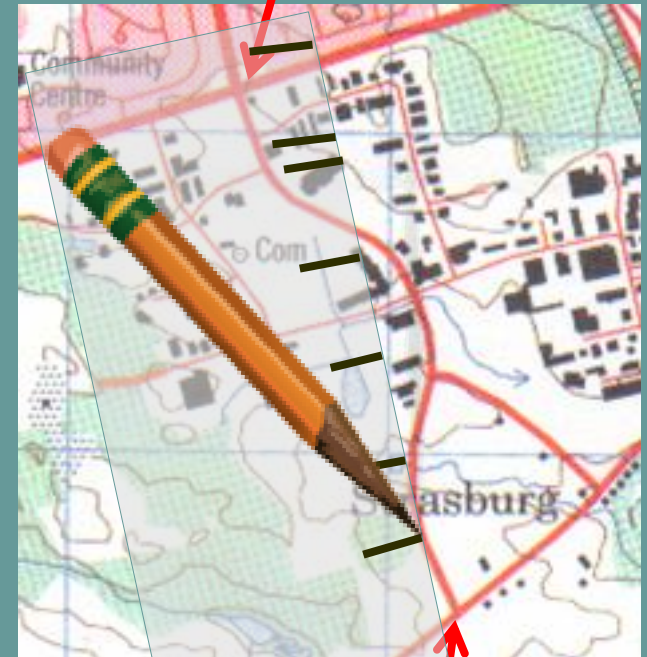
...and again...



Topographic Maps

Determining Distance Along a Curve

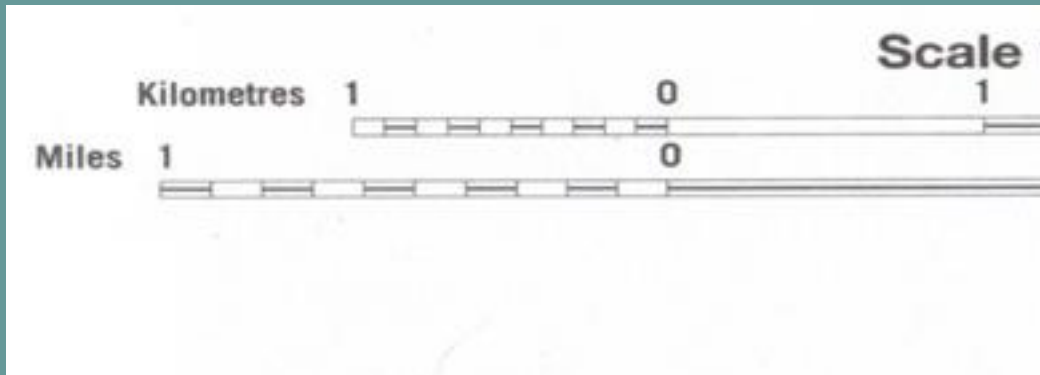
...and again...



Topographic Maps

Determining Distance Along a Curve

...and again.



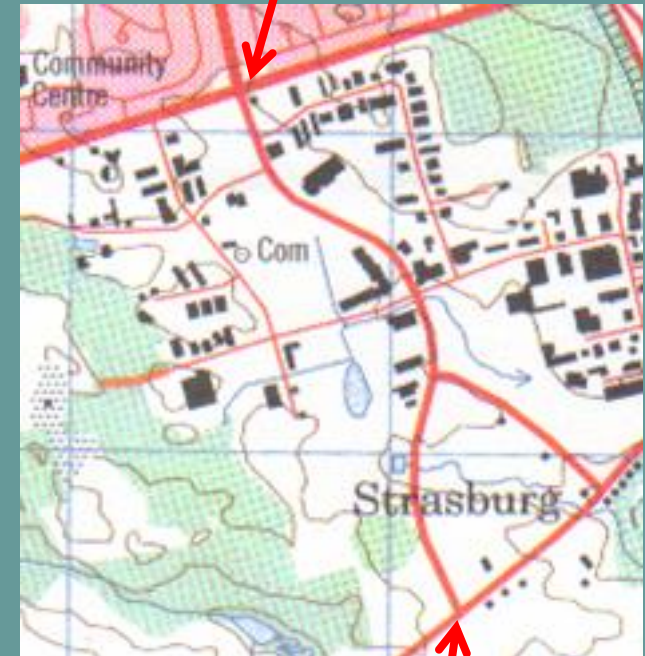
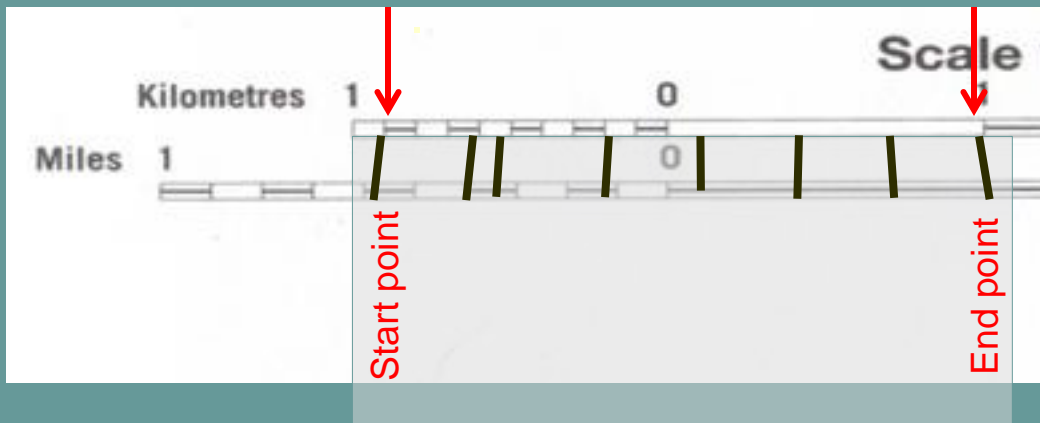
Topographic Maps

Determining Distance Along a Curve



Put the paper along the appropriate scale on the map and determine the distance between the marks.

In this example, 1 km (to the right of the “0”) and 900 m to the left, for a total of 1900 m.



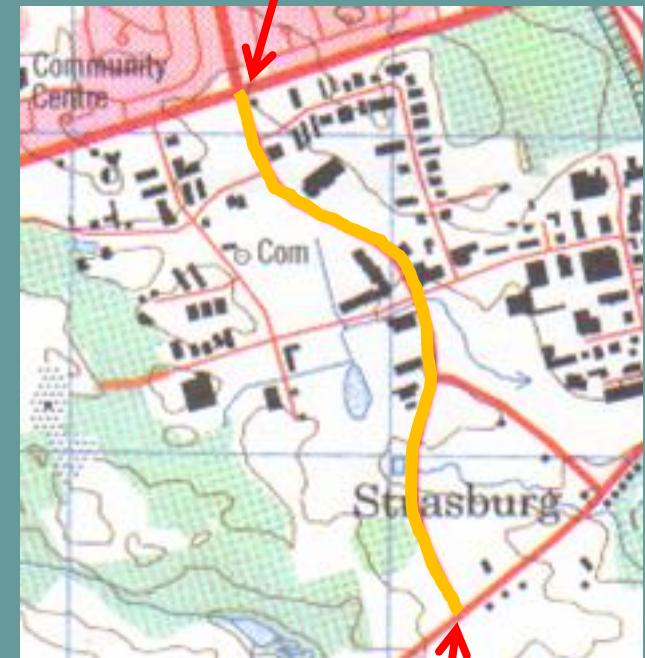
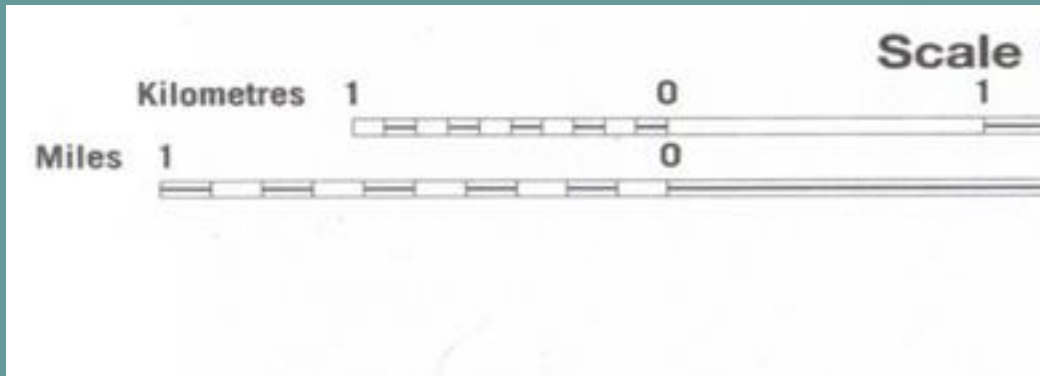
Topographic Maps

Determining Distance Along a Curve

Another way is to use a piece of string or soft wire.

Start with one end at “A”.
Make sure it follows the road as closely as possible.

Use your finger to mark the end at “B”.

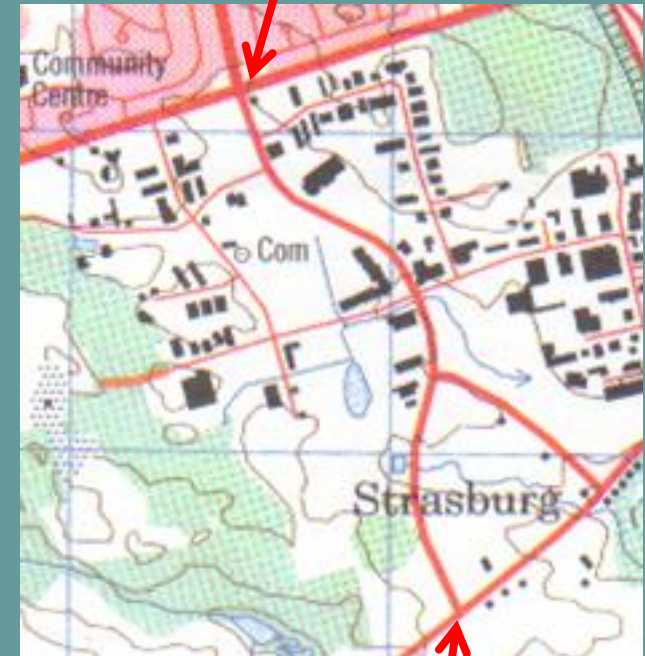
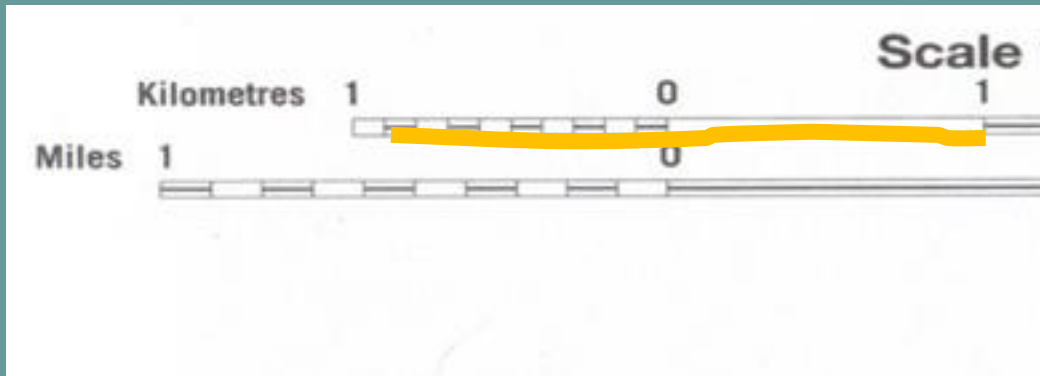


Topographic Maps

Determining Distance Along a Curve

Move the string to the scale, pull it straight and read the distance.

In this case it is almost exactly 1900m.



Topographic Maps

Other Methods of Determining Distance



The UTM Grid squares are 1000m x 1000m (regardless of map scale)

They can be used as a quick method of estimating distance on the map.

Also, for those who are mathematically inclined, on a 1:50,000 scale map, 1cm = 500m. You can use a ruler to measure distances, but be careful...its easy to make mistakes.

