

The Closure looks like this:

	x'	<u>Cosine</u>	<u>Sine</u>	<u>Lat.</u>	<u>Dep.</u>
South		1.00	0.00	-213.22(6)	0.00
South 30° West	100.0	.8660254	.5000000	- 86.60	- 50.00
North 40° West	200.0	.7660444	.6427876	+153.21	-128.56
North 40° East	10.0	.7660444	.6427876	+ 7.66	+ 6.43
South 50° East	500.0	.6427876	.7660444	-321.39	+383.02
(3) N. 24°56'49" W.	500.0	.9066987(4)	.4217800(2)	+460.34(5)	-210.89(1)

The required information is arrived at in the following sequence (1), (2), (3), (4), (5) and (6).

Therefore required information is:

$$\begin{aligned} x' &= 213.22' \\ D^\circ &= N. 50^\circ W. - N. 24^\circ 56' 49'' W. \\ &= 25^\circ 03' 11'' \end{aligned}$$

You will appreciate the simplicity of this method after it has been used once or twice. The basic rules are simple.

- (1) Let the Bearing of the intersecting line be North or South.
- (2) Relate all other Bearings thereto.
- (3) Solve for the missing Departure and from this the missing Bearing and Latitude.

The mathematical theory involved is sound and I can think of no instances when it will not work. As the intersecting line becomes radial the unknown Departure ( (1) above), approaches zero, and as the intersecting line becomes tangential, the unknown Departure approaches the length of the radius. If the unknown Departure is greater than the radius, the intersecting line does not intersect the curve. If the radius of the curve is very large, it may be necessary to compute the unknown bearing of the radius to the nearest 1/10 second.

\* Submitted by the Hamilton and District Group

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### DO-IT-YOURSELF FORECASTING

Here are some tips from Ontario Hydro meteorologist Don Gillies on how to make your own weather forecasts, relying mainly on wind direction:

- ⊙ Whether it be clear or raining, no change in the weather will come until the wind changes; no wind at all means no change.
- ⊙ Good weather usually comes with NW, W and SW winds (except in those areas lying to the lee of open lakes — such as the Niagara, Northwest Central and Southern Georgian Bay Regions; in these areas, during winter, heavy snow occurs with NW winds).
- ⊙ Winds from NE, E and S bring bad weather.
- ⊙ If it rains in the morning with winds from NE to S, and the winds begin to shift to western points, then the rain will soon stop.
- ⊙ If the sky is cloudy and the wind shifts from SW to SE, or from NW to NE, then look for a squall.
- ⊙ If the sky is clear and the winds begin to shift back and forth between SE and SW, then bad weather is on the way with rains or wind squalls.
- ⊙ If there is an early morning fog, or frost or dew, there will be no rain for the day. ■