Let The Client Close

Closing the interview is usually done by the client. He comes in for information, or for help in solving a problem, and when he's satisfied he gets up and leaves. But as a matter of courtesy, ask him to drop in again whenever he has another problem or in fact at anytime.

If the client is extremely talkative, rising is a graceful way to apply the brakes.

We've all got our share of problems - but it's of the utmost importance that they don't overwhelm us so that we forget the cardinal rule of showing a genuine interest in other people and their needs. Our goal should be to treat every client in such a way, that he leaves with a favourable impression. He should feel he's been treated as an important individual, with respect and courtesy. Above all, he should believe you are glad he called, and that you were pleased to serve him.

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SPECIAL ARTICLE

METHOD FOR SOLVING ANY INTERSECTION OF ANY SIMPLE CURVE BY A STRAIGHT LINE *

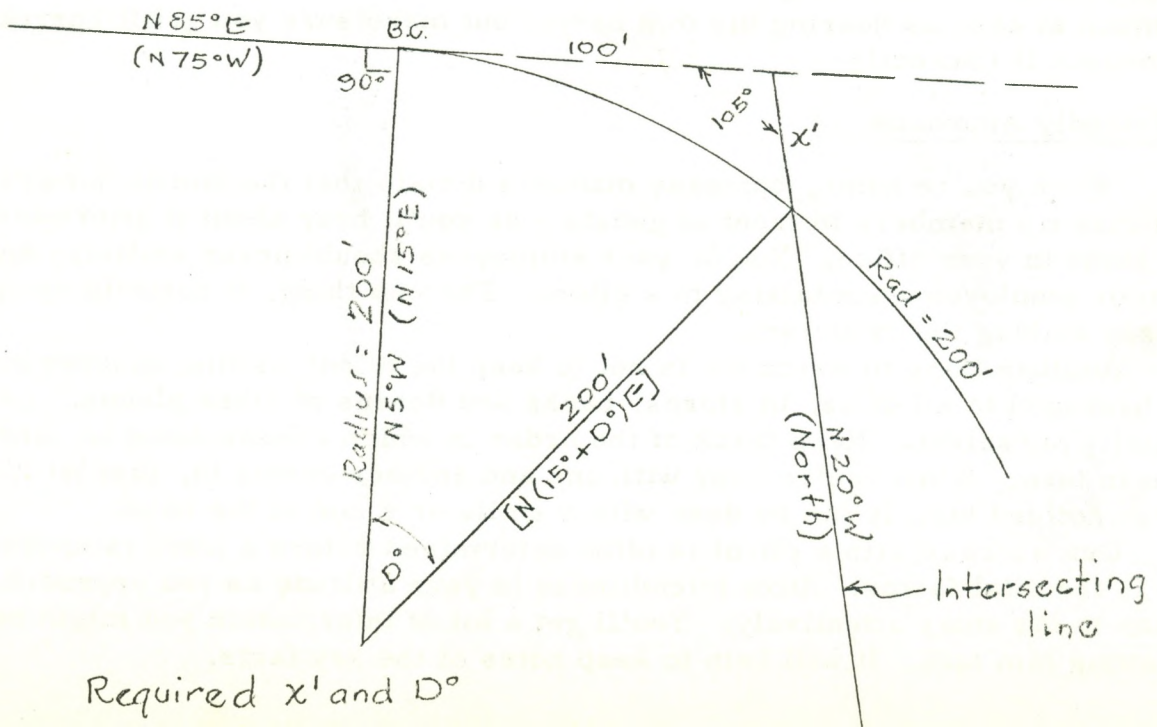
This solution is based upon a simple Latitude and Departure Closure and on the two mathematical facts that the Departure of a line running due North or South is zero, and that a Departure divided by a distance produces the sine of the Bearing of the distance.

Step 1 - Let the Bearing of the line intersecting the curve be North (or South).

Step 2 - Relate all other Bearings necessary for the Solution of this problem to the Bearing of the intersecting line as North (or South).

Step 3 - Set up a Latitude - Departure Closure beginning at the point of intersection of the intersecting line with the curve.

Consider the following example in which the information given is the radius and the point where the intersecting line crosses the tangent. The Bearings shown without brackets are actual and those shown in brackets are referred to the Bearing of the intersecting line as North.



Step 1 - Let the Bearing of the intersecting line be North (shown in brackets).
Step 2 - Relate all other bearings thereto (shown in brackets).
Step 3 - Set up a closure beginning at the point of intersection of the intersecting line with the curve - Note where x' and D° appear in the closure.

North x'
North 75° West 100.0'
South 15° West 200.0'
North (15°+D°) East 200.0'

Now fill in the closure in the usual manner.

		Cosine	Sine	Lat.	Dep.
North	x'	1.00	0.00	+	0.00(1)
N.75°W.	100.0	.2588190	.9659258	+ 25.88	- 96.59
S.15°W.	200.0	.9659258	.2588190	-193.19	- 51.76
N.(15 + D)°E.	200.0		.7417500(3)		+148.35(2)

NOTE: (1) That the Departure of the required line North x' is zero.
(2) This is the Departure of this course by algebraic addition, since the algebraic sum of all Departures is zero in a closed figure. The sign of this dimension will indicate whether the required bearing is E. or W.
(3) If we divide this Departure (2) by the radius we will obtain the sine of the bearing of this course, and the bearing becomes N.47°52'51"E. (solve the bearing to the nearest second).

The closure now looks like this:

		Cosine	Sine	Lat.	Dep.
North	x'	1.00	0.00	+ 33.18(5)	0.00
N.75°W.	100.0	.2588790	.9659258	+ 25.88	- 96.59
S.15°W.	200.0	.9659258	.2588190	-193.19	- 51.76
N.47°52'51"E.	200.0		.7417500	+134.13(4)	+148.35

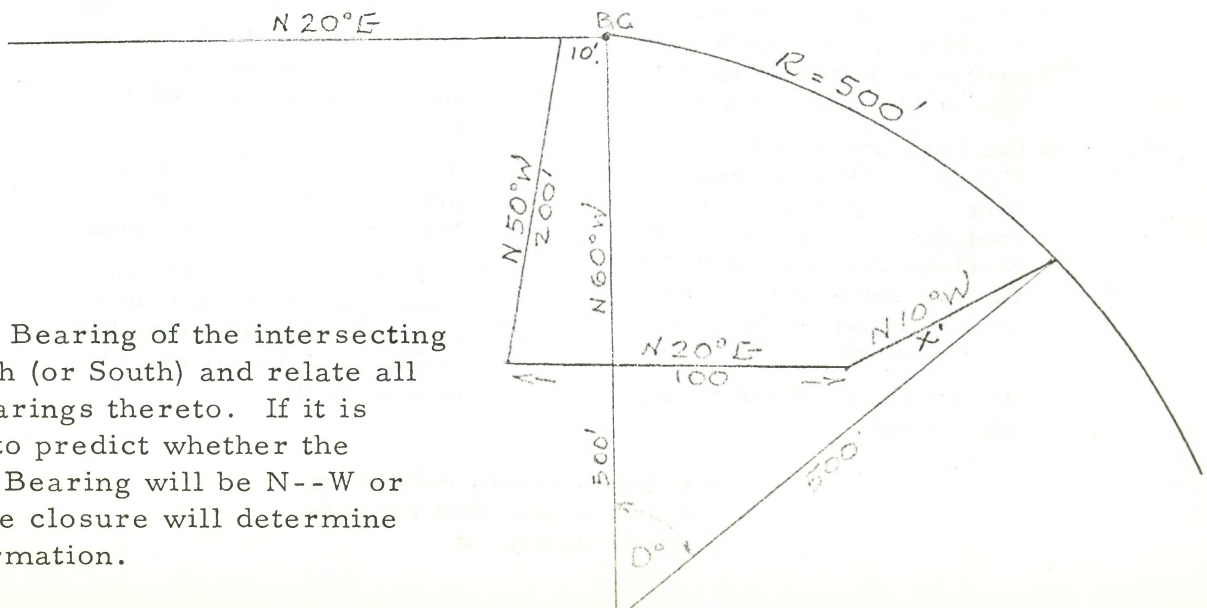
(4) Multiply 200.0 by the cosine of bearing found in (3) above to find Latitude. (200.0 x .6706748).
(5) Add Latitude algebraically to find the missing Latitude which is equal to the distance x (because its direction is North). (Since the algebraic sum of all Latitudes is zero.)

We have now found x' is 33.18'.

And D° equals the difference between the bearings of the two radii (i.e.) N.47°52'51"E. minus N. 15° E., or 32° 52'51"=D°.

We may now find the arc, chord and chord bearing in the usual way:

Here is another example worked out -



Make the Bearing of the intersecting line North (or South) and relate all other Bearings thereto. If it is difficult to predict whether the required Bearing will be N--W or N--E, the closure will determine this information.

The Closure looks like this:

		Cosine	Sine	Lat.	Dep.
South	x'	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:

x' = 213.22'

D° = N. 50° W. - N. 24°56'49" W.

= 25°03'11"

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. ■