

Name: _____

Date: _____

Learning Goal 2.3

Use of sine and cosine laws to solve non-right triangles, including ambiguous cases.

What if it's not a right triangle?

The Sine Law

Example In $\triangle PQR$, $\sphericalangle P = 53^\circ$, $\sphericalangle Q = 44^\circ$ and $q = 23.4$ m. Determine the measure of p to the nearest tenth of a metre.

Example In $\triangle LMN$, $\angle L = 64^\circ$, $\angle M = 31^\circ$, $l = 25.2$ cm and $m = 16.5$ cm. Determine the measure of n to the nearest tenth of a metre.

Example Pudluk's family and his friend own cabins on the Kalit River in Nunavut. Pudluk and his friend wish to determine the distance from Pudluk's cabin to the store on the edge of town. They know that the distance between their cabins is 1.8 km. Using a transit, they estimate the measures of the angles between their cabins and the communications tower near the store. Determine the distance from Pudluk's cabin to the store to the nearest tenth of a kilometre.

