

Time Out for Traveling

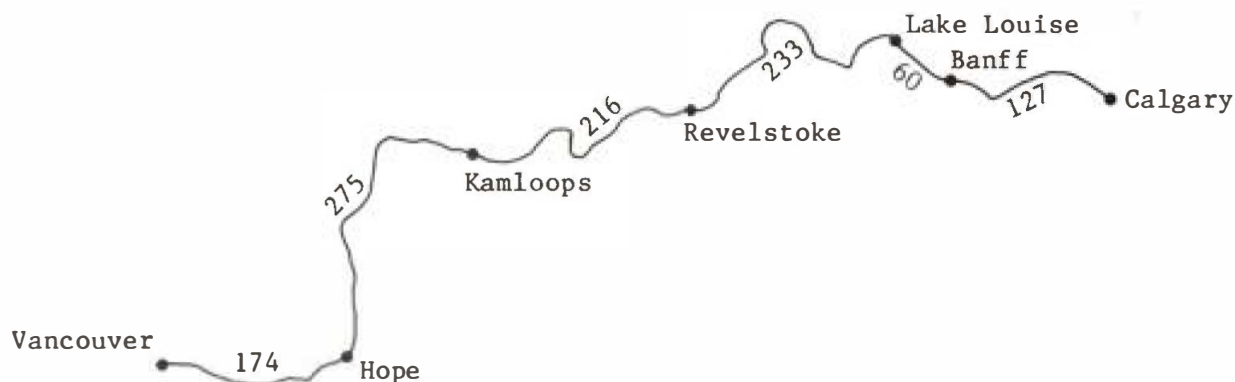
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This is a modification of an article by Richard Trimarco which was originally published in the May 1981 issue of the Mathematics Teacher. The original article applied to the Boston-Philadelphia area and used imperial units.

Activity 1.

If you travel by bus from Calgary to Vancouver, departure is at 1830 and arrival is at 1000 the next morning. (Don't forget the time zone change.) A one-way ticket costs \$39.10.

1. How far is Vancouver from Calgary by bus? (Distance between towns is given in kilometres.)
2. What is the average speed of the bus, assuming only a five-minute stop at each center shown on the map?
3. What does it cost per kilometre to travel by bus?

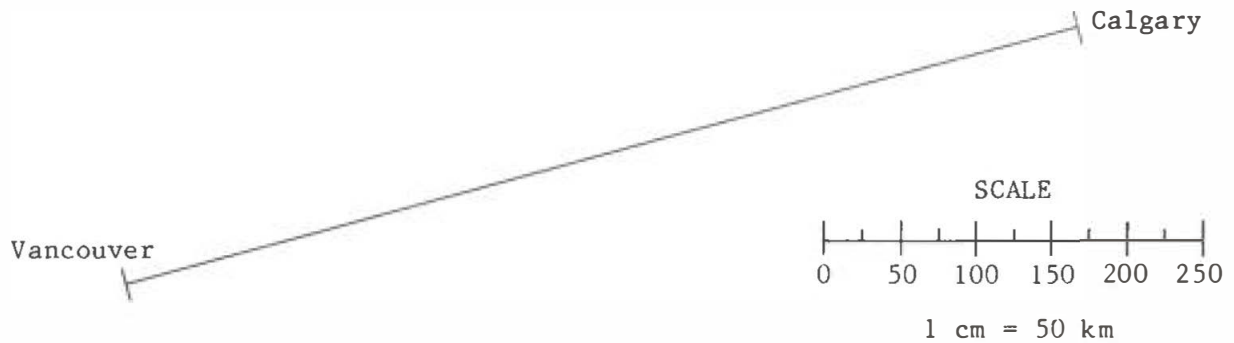


Activity 2.

If you fly from Calgary to Vancouver, you can leave Calgary at 1720 and arrive in Vancouver at 1740 on a DC-9 airplane.

1. Use your ruler and the scale given to find the distance by air from Calgary to Vancouver.

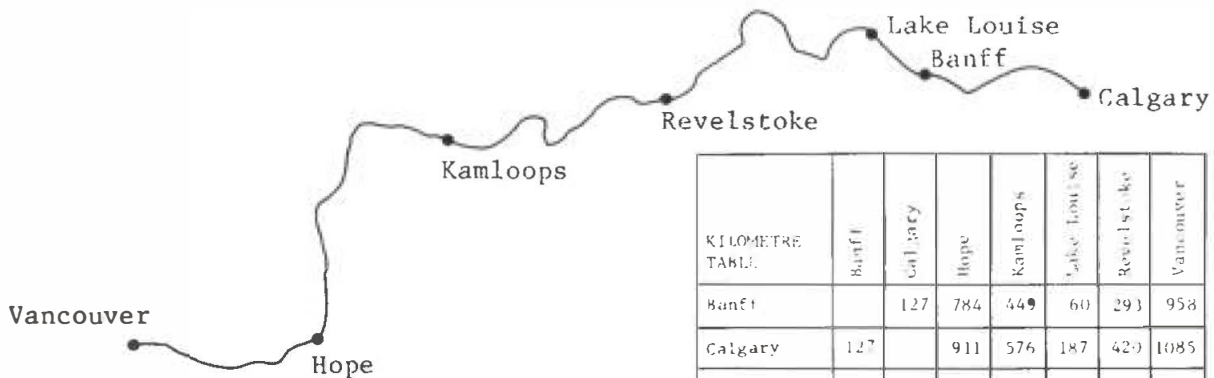
2. What is the flying time? (Don't forget the time zone change.)
3. Find the average flight speed for the DC-9 in kilometres per hour.
4. If the one-way economy fare is \$87, what is the cost per kilometre?



Activity 3.

Suppose you travel by automobile from Calgary to Vancouver on the Trans-Canada Highway. Gasoline costs an average of 38 cents per litre.

1. How far is Vancouver from Calgary?
2. If you average 80 km/hour and drive nonstop, how long would the trip take in hours and minutes?
3. Find the cost of gasoline for the trip if your car averages 11 litres/km.
4. Estimate the cost per kilometre of the automobile trip. What cost factors other than those given should be considered in order to obtain a valid estimate of the actual cost per kilometre?



KILOMETRE TABLE	Banff	Calgary	Hope	Kamloops	Lake Louise	Revelstoke	Vancouver
Banff		127	784	449	60	293	958
Calgary	127		911	576	187	420	1085
Hope	784	911		275	724	491	174
Kamloops	449	576	275		449	216	449
Lake Louise	60	187	724	449		233	958
Revelstoke	293	420	491	216	233		898
Vancouver	958	1085	174	449	958	898	

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