



## Problem of the Week

### Problem D

#### What's in That Square?

Fourteen squares are placed in a row forming the grid below. Each square is to be filled with a positive integer, according to the following rules.

1. The product of any four integers in adjacent squares is 120.
2. Integers may appear more than once in the grid.

Four of the squares are already filled with a positive integer, as shown. Determine all possible values of  $x$ .

		2			4			$x$			3		
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### Layover Between the Trips

A plane travels from Calgary, AB to Grande Prairie, AB. The total flight time, including takeoff and landing, is 1 hour and 40 minutes. The return flight takes the same route and time. The average speed for these two flights is 500 km/h.

After a brief layover in Grande Prairie, the average speed of this entire round trip (including the two flights and the layover in between) becomes 425 km/h. How long was the layover?

