



Problem of the Week

Problem B

Yukon Do It!

The Yukon Quest is one of the most famous endurance sled dog races in the world. The total distance the race covers is 1635 km.

- (a) If the average distance travelled per day for each team is 145 km, how many days will it take, on average, for a team to complete the Yukon Quest?
- (b) A team of Alaskan huskies travels at 15 km per hour, with an 18 minute rest after every three hours. A team of Siberian huskies runs more quickly at 20 km per hour, but requires a 30 minute rest after every two hours.

On a certain day both teams travel 145 km. Create a broken-line graph of distance versus time for each team for that day.

SUGGESTION: You may find it helpful to first construct a table for each team, matching the total distance travelled with the elapsed time for each interval of travel and rest.

- (c) Suppose that the weight of some additional equipment slows the average speed of the Siberian huskies by 5 km per hour. If the team still travels 145 km in a day, by how many minutes will this increase their travel time for the day?

