

Idita-Math Challenge

Grades 6 - 8

Directions: Find the answer for each Iditarod problem by adding, subtracting, multiplying or dividing. Use the Checkpoint Dog chart to create charts, graphs & spreadsheets for questions 7 thru 10.

1. How many booties does Iditarod require a musher to carry in the sled for each dog running or being transported in the sled? How many booties must Rick Swenson have to start the race with 16 dogs?
2. Booties cost 85 cents each. How much would 2,000 booties cost?
3. Booties measure $3\frac{1}{4}$ inches wide by 5 inches long being $\frac{3}{32}$ of an inch thick at the toe and $\frac{3}{16}$ of an inch thick at the opening including the Velcro wrist wrap. What would be the minimum size box to hold 100 booties?
4. Jeff King and Mitch Seavey sell booties to tourists for \$2.00 each. Booties cost 85 cents. How much profit do the mushers realize on each bootie sold? What is their profit on 100 booties?
5. With booties costing 85 cents and being sold for \$2.00, what is the percentage of profit on each bootie sale?
6. If a dog were to get 70 miles out of each change of booties, how many booties would a dog use for the Iditarod – 1049 miles?

Checkpoint/Dog Chart for John Baker and Ramy Brooks (Use for questions 7 thru 10)

Checkpoint	Miles from Anchorage	Dogs In	Dogs Out
McGrath	401	16	15
Cripple	504	15	13
Ruby	609	13	12
Nulato	706	12	11
Golovin	1013	11	9

7. John Baker began the race with sixteen dogs and finished in Nome with nine dogs. The chart above shows which checkpoints he dropped dogs at and the miles from Anchorage he had traveled. Create a bar graph showing the number of dogs John left each checkpoint with. Include the mileage from Anchorage for each checkpoint.
8. Ramy Brooks began the race with 16 dogs and finished with 9 dogs. Using the information from the Checkpoint Dog Chart above, create a bar graph to calculate the number of booties Ramy used for the race. Ramy prefers to change booties approximately every 100 miles and has a supply of 2,000 booties. What percentage of his bootie supply did Ramy use?
9. Using the Checkpoint Dog chart above, calculate the percentage of the race Ramy Brooks has completed as well as the percentage of his dogs that are still in the race for the five listed checkpoints.
10. Using the Checkpoint Dog chart above, create a paper/pencil chart and then design an electronic spreadsheet for the purpose of calculating the total number of dog miles for John Baker's team.