

Rookie Meeting Math

On Saturday, December 4, the rookie meeting for the 50th running of the Iditarod was held via ZOOM. A collection of veteran Iditarod mushers and Iditarod staff joined to preview the race and review the rules and dog care, as well as give advice for this year's rookies.

Use these math problems to fire up your students about the rookie mushers and the race in general.

1. As of today there are 54 mushers signed up for the 2022 Iditarod, 15 of which are rookies to the race. What fraction of the mushers is rookies? What percentage is rookies?
2. Veteran musher Aaron Burmeister shared his expertise on getting the dogs diets and exercise ramped up. An Iditarod dog may burn as many as 12,000 calories a day while racing. According to the MacDonald's restaurant website, eating a Big Mac would provide you with 550 calories. How many Big Macs would need to be eaten in 1 day to provide 12,000 calories? Find out the calorie content of your favorite food and figure out how much of it you would need to eat to gain 12,000 calories.
3. Aaron Burmeister gave these suggestions regarding the size and weight of snacks for the dogs. He said a snack should weigh about $\frac{1}{4}$ lb. and be $\frac{1}{2}$ - $\frac{5}{8}$ inches thick. Overall dimensions should be roughly $\frac{1}{2}$ " x $\frac{3}{4}$ " x 6". How much space would snacks for 14 dogs take up? How much would snacks for 14 dogs weigh?
4. He also said that raw beef is about 2,000 calories/lb. How many pounds of raw beef would a musher need to snack a team of 14 dogs? (Remember that a snack is $\frac{1}{4}$ lb.)
5. The lead trailbreaker gave the rookie mushers an overview of the trail and how the trailbreakers set it up and maintain the race route. He said that 15,000 lath are set out along the race route. If they are set at equal intervals, and the race is 1,000 miles long, how far apart from each other are they?
6. In mid-February, mushers send supplies in drop bags to most checkpoints. Each bag should weigh no more than 50 lbs. If a musher sends 1 drop bag to each of the 19 northern route checkpoints that bags can be shipped to, how many pounds of supplies would that be? If they send 2, 3, or 4 bags how many would that be for one musher? How many pounds would that be for all 54 mushers?
7. If each team starts with the allowed maximum of 14 dogs, how many total dogs will the rookie teams be starting with? How many total dogs will the remaining veteran teams be starting with?

8. Veteran musher Al Eischens advised mushers to pack 3 pairs of gloves of varying levels of protection for every checkpoint. After mushers leave Willow, they pass through 19 checkpoints where they can have supplies waiting for them. How many pairs of gloves would 1 musher send out if they followed his advice?
9. One musher advised the rookies to keep their team from going too fast. He stated that a speed of 8 mph is sustainable for the dogs. If the dogs were able to travel consistently at 8 mph, how much time would it take for the team to travel the 1,000 mile race route? (Assuming no stops, which of course isn't the case.)
10. Iditarod CEO Rob Urbach stated that only 816 humans have finished the Iditarod but over 27,000 humans have played professional football in the NFL. How many times more people play in the NFL than finish the Iditarod?