

Yukon Quest Math Challenge

Here are some Yukon Quest Math word problems. Give them a try and then use the [Answer Key](#) [1] link to check your work.

Members can Submit your own math questions. Use the [Contact Form](#) [2].

1. Mushers must put booties on dogs to protect their feet from sharp ice on the trail and to keep the dogs from getting painful snowballs between their toes. It takes champion mushers like Aliy Zirkle about 15 seconds to put one bootie on a dog. How long would it take her to put booties on a team of sixteen dogs? [Answer Key](#) [1]

2. Bill decides to go on a training run with a small team of four dogs: Smokey, Star, Gertie and Bella. While he is on his run, he wants to stop and give each dog a chance to run in a different position, because he wants to see where each dog performs the best. How many times will he have to stop before each dog has had a chance to run in each of the four positions? [Answer Key](#) [1]

3. Dogs on a team are often related to each other. For instance, on one team, Smokey is the son of Chief, and Razor is the great grandfather of Junior. Junior is the grandson of Chief. Put the four dogs in order from the youngest to the oldest. [Answer Key](#) [1]

4. Sandy bought four "iron rope" necklines (the kind that dogs are not supposed to be able to chew through.) They are \$3.95 each. The dogs immediately chewed through three of them. How many necklines are left? [Answer Key](#) [1]

5. An outstanding lead dog has a problem - she eats rocks. This can cause quite a medical problem, so her musher built a wooden platform for her to live on. One side is ten feet long. How many square feet are there in the platform? (Hint: Draw a picture and remember what you know about exponents and the area of a square). [Answer Key](#) [1]

6. Dave has 36 dogs in his kennel. One half of his dogs are black, one sixth of the dogs are mostly white, and the rest are brown. How many brown dogs does he have? (Hint: Draw a picture.) [Answer Key](#) [1]

7. Sarka wanted to train her dogs on a clear, starry night. Because of a weather condition known as an "inversion", the colder air was settled in lower areas, and it was warmer at higher elevations. It was -44 degrees Fahrenheit on her favorite trail in the Tanana flats. She decided to use the trails in Two Rivers, because it was only -6 F there. How many degrees warmer was it in Two Rivers? Answer Key [1]

8. After Sarka worked with her dogs on the trail, she stopped at Tack's for some coffee, an omelette, and a cinnamon roll. The coffee was \$.75 a cup, the omelette was \$4.95, and the cinnamon roll was \$2.95 (It was HUGE!). Sarka made sure she tipped the waitress 15%. What was the cost of the food? (Bonus - How much was the tip?)Answer Key [1]

9. Bill and Sandy have 28 sled dogs in their kennel. Each dog gets a half pound of dog food a day. One bag of dog food weighs 40 pounds. About how many days will one bag of dog food last? Explain your answer. Answer Key [1]

10. It's about 100 miles from Dawson to Stewart River. Your team is traveling at 10 miles an hour. After traveling 50 miles, you stop and rest your dogs for 5 hours. Then you continue all the way to Stewart River. How many hours would it take you to get from Dawson to Stewart River? Answer Key [1]

11. If a musher finished the Quest in 10 days, 22 hours and 32 minutes and another musher finishes in 11 days, 2 hours and 57 minutes, what is the time difference? (Submitted by Selkirk School grade 7 student) Answer Key [1]

12. Each day one sled dog eats 6 lbs of food. Every day the dog gains 6 lbs from eating that much food. Each day each dog also burns off 5 lbs and each dog weighs exactly 40 lbs. Over a period of 11 days how much will each dog weigh? (Submitted by Selkirk School grade 7 student) Answer Key [1]

13. There are 21 teams in the Quest. There are 14 dogs on 11 of the teams, 10 dogs on 2 of the teams, 1/4 of the rest of the teams have 8 dogs. The rest of the teams have 12 dogs each. How many dogs are there? (Submitted by Selkirk School grade 7 student) Answer Key [1]

14. If each bootie costs \$1.50, how much will it cost in total for all 21 teams of 14 dogs to be bootied at the start line?

(Submitted by Selkirk School grade 7 student) [Answer Key](#) ^[1]

15. There are 21 teams and 14 dogs per team. If each musher brings 1500 booties, how many booties are there? If each booties costs \$1.50, how much money is spent on booties?

(Submitted by Selkirk School grade 7 student) [Answer Key](#) ^[1]

16. Dog collars cost \$6.95. Each team has 32 collars, how much has the musher spent?

(Submitted by Selkirk School grade 7 student) [Answer Key](#) ^[1]

17. The Yukon Quest sled dog race covers 1,645 km of rough and sometime hazardous terrain between Whitehorse, Yukon and Fairbanks, Alaska. About what percent of the distance of the race is covered between each of the checkpoints? Answers may vary.

(Submitted by Paula) [Answer Key](#) ^[1]

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[1] <https://www.distlearn.ca/yukonquest/math-answer-key>

[2] <http://distlearn.ca/yukonquest/contact>