

# Idita-Math Challenge

Grades 3 - 5

Directions: Find the answer for each Iditarod problem by adding, subtracting, multiplying or dividing.

1. If booties cost \$1.00 each, how much would 10 booties cost? How much would 100 booties cost? How much would 1,000 booties cost?
2. If booties are purchased in quantities of 1,000 or more, they cost 85 cents each. How much would 1,000 booties cost?
3. How much would you save buying 1,000 booties at the quantity discount of 85 cents over ordering 500 booties twice during the winter at the standard price of \$1.00 per bootie?
4. You want to buy 1 bootie for \$1.00 with change in your pocket. Draw five or more possible coin combinations using exact change. You don't have any pennies in your pocket but you have 6 nickels, 5 dimes and 4 quarters.
5. You need one bootie. A friend will sell you one for 85 cents. You pay with a \$1 bill. How much change will you receive? Draw the possible coin combinations for your change.
6. Ramy Brooks reaches Nome with nine dogs. All of the dogs have 4 booties except one that has 2 booties. How many booties will Ramy remove after crossing under the burlled arch?
7. Martin Buser declares his 24-hour rest at Ruby. He removes 56 booties from his dog's feet. All dogs had 4 booties. How many dogs did Martin come into Ruby with?
8. There were a total of 12 mushers at Ruby who took their 24-hour rest along with Martin Buser. Each of the mushers had 13 dogs. How many dogs were at Ruby?
9. The distance from Unalakleet to Shaktoolik is 40 miles. Doug Swingley covered the distance in 4 hours. How fast was Doug traveling?
10. There were 79 teams that ran the 2005 Iditarod. Each team ran 12 dogs for the Ceremonial start in Anchorage. How many dogs left Anchorage? For the Restart in Willow, each team ran 16 dogs. How many dogs left Willow?

11. Zuma, Iditarod's canine reporter loves to eat pizza. Zuma ate half of a pepperoni pizza. How many quarters of the pizza did Zuma devour? How many quarters were left? How many quarters equal a half? Draw a diagram of Zuma's pizza to find your answer.

12. If Zuma's pepperoni pizza was divided into 8 pieces, how many pieces did Zuma eat if he devoured  $\frac{3}{4}$  of the pizza? How many quarters were left? How many eighths were left? Draw a diagram of Zuma's pizza to find your answer.

13. Dee Dee Jonrowe fed three dogs. One dog ate  $\frac{5}{8}$  of the food in her bowl. Another dog ate  $\frac{7}{8}$  of his food. The third dog ate  $\frac{3}{4}$  of her food. Using bowls as a measurement, how much food did the three dogs consume? What fraction of the dogs that Dee Dee fed are girls?

14. Jeff King fed eight dogs. The first dog ate  $\frac{1}{3}$  of the food in her bowl. Another dog ate  $\frac{1}{2}$  the food in his bowl. The third dog ate  $\frac{2}{3}$  of the food in her bowl. The fourth dog ate  $\frac{3}{4}$  of the food in his bowl. Dog number 5 ate all of the food in her bowl. Dog number 6 ate  $\frac{1}{4}$  of the food in her bowl. Dog number 7 ate all her food. Dog number 8 ate  $\frac{1}{2}$  of her food. Using bowls as a measurement, how much food did the 8 dogs consume? What fraction of the dogs that Jeff fed were boys?

15. Iditarod teams start from Wasilla with 16 dogs. What fraction of the beginning team remains on the trail when the number of dogs in the table is dropped? Express your answer in the smallest denominator possible.

Dogs Dropped	Fraction Remaining	Dogs Dropped	Fraction Remaining
1		6	
2		7	
3		8	
4		9	
5		10	