

### Seventh Grade Iditarod Math Problems

1. As of January 2006, 102 mushers are racing in the Iditarod Trail Sled Dog Race <sup>TM</sup>. Nineteen mushers are women. In the 2005 race, 16 women raced in a field of 79 mushers. What percent of each year's race were women?
  
2. In 2005, 16 mushers scratched (dropped out) during the race due to concerns for well-being of their dog teams or themselves. 79 mushers started at the official start in Willow, Alaska. Write a ratio that represents the number of mushers who scratched in 2005. Convert that ratio to a percentage showing how many mushers scratched.
  
3. DeeDee Jonrowe left Iditarod checkpoint March 11, 2005 at 6:12 a.m. and arrived at Shageluk (say shag-uh-luck) checkpoint March 11 at 2:20 p.m. Lance Mackey left Iditarod checkpoint March 11 at 8 a.m. and arrived at Shageluk checkpoint March 11 at 3:40 p.m. What is the time difference between the two mushers' travel time?

4. 2006 Race

	Veteran	Rookie	Female	Male	Total
Alaska	49	13	12	50	
Other USA		8	6	23	29
Other Countries	6	5	1	10	11
Total Sign-up	76	27	19	84	103
Withdrawn	0	1	0	1	1
Total Mushers	76	26	19		102

How many veteran mushers from states other than Alaska are there? How many mushers are men? What is the total number of mushers from Alaska?

5. Teams may race a maximum number of 16 dogs. Each dog needs booties for paw protection. A volunteer group called The Bootie Brigade makes booties for mushers to reduce expenses for the mushers. If bootie-maker (A) can sew 10 booties in 60 minutes and bootie-maker (B) can sew 7 booties in an hour, how many booties can they make in 3 hours and 15 minutes?

6. Ramy Brooks, DeeDee Jonrowe and Jessie Royer have 261 dogs at their kennels. Ramy has 87 dogs. DeeDee has 2 times more dogs than Jessie. How many dogs do DeeDee and Jessie each have?
  
7. Out of 107 dogs, a 15% are female puppies, 21% are male puppies, 34% are adult female dogs, and 30% are adult male dogs. How many adult female dogs and adult male dogs are there? Round to the nearest whole number.
  
8. In the 2005 race, 79 Idita-Riders won bids to ride with a musher in the Ceremonial race start in Anchorage. Mrs. Dobson rode with the number 9 bib, Phil Morgan, the Red Lantern winner in 2005. What are the odds that of 79 Idita-Riders, Mrs. Dobson's photograph is one of 5 pictures scrolling on the 2006 Idita-Rider auction link?
  
9. Phil Morgan, the 2005 Red Lantern winner, finished last with a time of 15 days, 6 hours, 2 minutes and 57 seconds. The race length is approximately 1150 miles. Using days and hours, what was his average speed per hour for the race?
  
10. Out of 33 races, 2 women, Libby Riddles and Susan Butcher, have won it 5 times. What percent of the races did women win? What percent did men win?