

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?

Bootie-maker (A) 30 booties in 3 hours; 15 minutes = $\frac{1}{4}$ of 10 booties or 2.5
 $30 + 2.5 = 32.5$ booties for Bootie-maker (A)

Bootie-maker (B) 21 booties in 3 hours; 15 minutes = $\frac{1}{4}$ of 7 booties or 1.75
 $21 + 1.75 = 22.75$

Together they can make $32.5 + 22.75 = 55.25$ booties

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?

$261 - 87 = 174$ dogs for DeeDee & Jessie; 87 dogs in Ramy's kennel

$x = \text{Jessie}$ $2x = \text{DeeDee}$ $x + 2x = 174$

$3x = 174$

$3x$ divided by 3 = 174 divided by 3

$x = 58$ dogs in Jessie's kennel

$2 \times 58 = 116$ dogs in DeeDee's kennel

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.

$107 \times .34 = 36.38$ rounded to 36 female adult dogs

$107 \times .30 = 32.1$ rounded to 32 male dogs

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?

$5 : 79$ $5/79 = .06$ 6 % chance of her picture scrolling

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?

Convert days to hours. $24 \times 15 = 360$ hours + 6 hours = 366 hours

1150 divided by 366 hours = 3.14 average miles per hour

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?

$5/33 = 15\%$ races won by women $100\% - 15\% = 85\%$ won by men