Bright Eyes & Bushy Tails
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Dear Animal Shelter raffle participant,

On June 7-8, Bright Eyes & Bushy Tails Veterinary Clinic sponsored a raffle at the Iowa City/Coralville Animal Shelter. Thank you for participating! "How many bones in the jar" was our way of focusing attention on pet overpopulation. We apologize if we misspelled your name on the envelope, but the writing on some of the entries was difficult to read. We had 97 entries total.

There were 187 biscuits in the jar. The range of guesses was from 50 to 381. The average guess was a little bit low at 141 biscuits.

The more interesting question, of course, was "starting with two cats (one male and one female adult, un-neutered), how long would it take before there were a total number of cats equal to the number of bones, assuming no illness and no premature mortality."

Here are the parameters we considered important for the solution:
a) A cat must reach the age of 7 months before sexual maturity. This is an average; some cats are ready to reproduce at 6 months, others must reach 8 months or so.
b) Gestation period (length of pregnancy) is 64 days
c) Average of 5 kittens per litter
d) Litters are 50% female/50% male.
e) Assume 2 litters per year
        Female cats can become pregnant three weeks after giving birth during breeding season, for a theoretical average of 3.8 litters or 19 kittens per year. Thankfully, breeding season is not year 'round. We assumed 2 litters spaced 92 days apart for each female cat, starting with the first pregnancy when the cat reached 7 months of age.

With these numbers and an assumption the first few litters would be average (alternating between 2 females/3 males and 3 females/2 males per litter), cat #182 was born on month number 27. Guesses at the Adoptathon ranged from 3 to 100 months (average guess of 20.7 months).