Name: _____

Canine Care, Coat Color and Litter Size

1) $\frac{28}{2} + \frac{42}{3} =$ ____

2) $2\left(\frac{40}{4} + \frac{100}{20}\right) + \frac{88}{11} =$ ____

3) $\frac{80}{1} - \frac{35}{7} + \frac{13}{1} =$ ____

4) $\frac{18}{2}\left(\frac{1000}{200} + \frac{12}{3}\right) + \frac{39}{3} =$ ____

5) $\frac{48}{4}\ x\ \frac{144}{12} =$ ____

6) $\frac{1000}{50}\ x\ \frac{24}{3} - \frac{48}{4} =$ ____

7) $\frac{550}{11}\ x\ \frac{24}{4} - \frac{51}{17} + \frac{138}{138} =$ ____

8) $10\left(\frac{14}{7}\right)\left(\frac{6}{2}\right) + \frac{420}{2} + \frac{32}{4} =$ ____

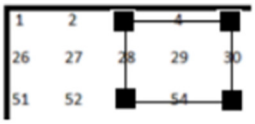
Ex. If answer was 3: 

9) For each of your answers 1-8, draw a dark square around the numbers in the box below.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	21	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225
226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275
276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325
326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350

10) In order of answers 1-8, draw a line connecting your dark squares.

Ex. If answers were; 1) 3 2) 5 3) 55 4) 53



Peremeter = 80 Feet **Area** = 400 square ft

Labrador Retrievers (Labs) love to play and run. It's best if they have over 10,000 square feet of yard space (area). The above drawing represents an overhead view of a Lab owner's yard.

11) If the distance between each number was 10 feet, what is the perimeter of the enclosed yard?

13) Calculate the yard's area.

14) Is this enough room for the Lab? _____

A Labrador Retriever breeder named Amy is attempting to plan for expenses of Lab care before Lab puppies are purchased and placed in a nurturing and loving home. Help Amy plan for expenses of future litters of Lab puppies.

<u>Need-to-know DATA</u>

- Labrador Retriever Average Litter Size– 7 puppies
- Amy's Labrador Macy typically produces litters where 4/7ths are black, 2/7ths are chocolate, and 1/7th is yellow
- Amy allows Macy to give birth to 1 litter per year.

Scenario 1: On day 1, Macy gives birth to her first litter of 7 puppies. A year later, each of those 7 give birth to 7 and Macy gives birth to another 7 puppies.

14) How many total dogs is Amy now caring for? _____

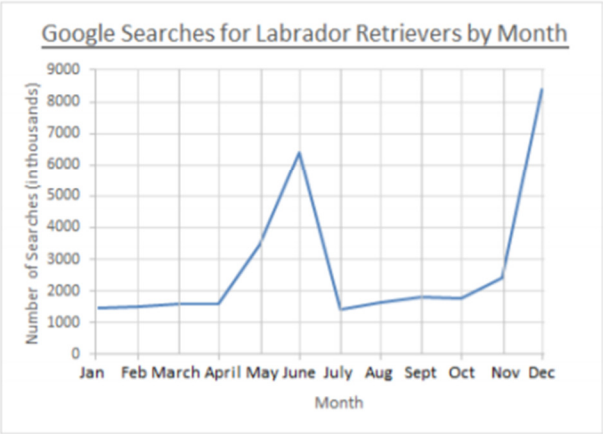
15) Not counting Macy, and assuming the coat color odds remain fixed, how many of the first and second generation puppies are black? _____ are chocolate? _____ are yellow? _____

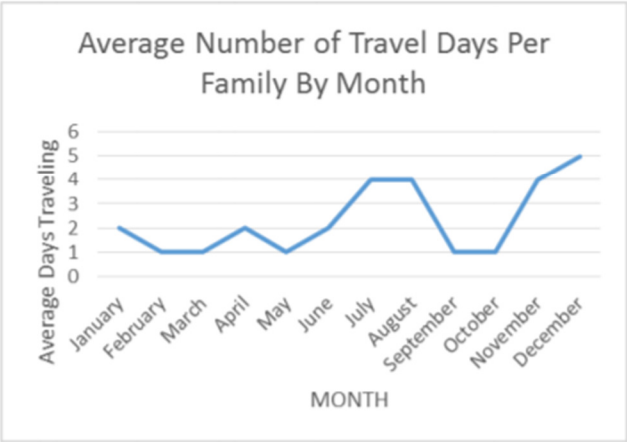
Scenario 2: Amy will spend an average of $5.00 per day caring for each Lab puppy and won't let any Lab puppies go to their new homes until they are at least 8 weeks old.

16) Assuming they are placed in new homes after 8 weeks, how much would Amy need to charge per Lab puppy so that there is no net gain or loss? Show your work!

17) Suppose a puppy didn't go to his/her new home until it was 10 weeks old. How much would Amy need to charge to experience no net gain or loss?

Scenario 3: Analyze the graphs below. The first shows the relationship between time of year and interest in Lab puppies. The second graph shows the relationship between time of year and family travel.





Labs are pregnant for approximately 2 months before giving birth.
Puppies need to be at least 8 weeks old before being placed in new homes.

18) Based on the level of interest puppies during certain times of the year, which 2 months of the year would be best for Amy to have her dogs bred in order for quick placement? Explain your answer(s).

19) Why do you think there is such a high interest in buying a puppy in June and December?

20) Based on the average number of travel days per month, and understanding that puppies need many hours of attention and care, when would be a good time for a family to get a puppy? When should families consider not getting a puppy?