

* Unit 6 Review *

- 1) a) $756/1,000 = 3/4$
 b) $750 + 255 - 230 = 775/1000 = 31/40$ → Take out the "and"
 c) $230/1,000 = 23/100$
 d) $230/750 = 23/75$

2)
$$\frac{P(A \cap B)}{P(A)} = \frac{P(\text{studies} \cap \text{passes})}{P(\text{studies})} = \frac{17/20}{15/16} = 68/75 = 91\%$$

3)

$.78 \times .15 = .117$
 $.22 \times .90 = .198$
 $+$
 31.5%

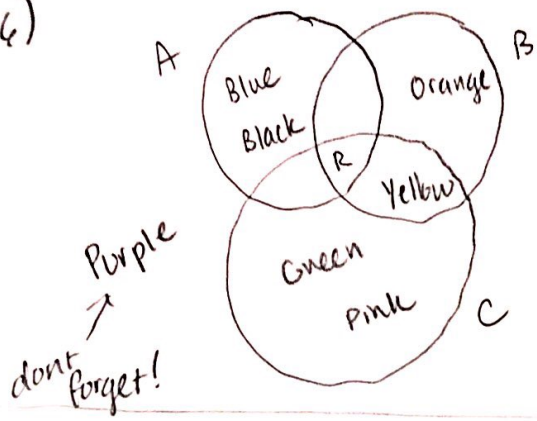
4)

$2/10 = 1/5 = 20\%$

5)
$$\frac{P(A \cap B)}{P(A)} = \frac{.12}{.45} \text{ (BOTH)} = 26.7\%$$

↑ given dog owner

6)



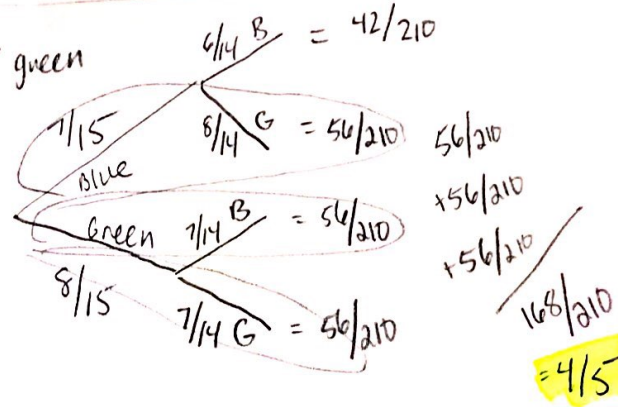
- a) Blue, Black, R, Orange, yellow
- b) Red
- c) none
- d) yellow, Green, Pink
- e) Blue, Black, Purple, Green, Pink, yellow, orange

7)

a) Multiply your branches then add the probabilities of one of each

$$B \text{ or } R \text{ or } R \text{ or } B \\ \frac{6}{25} + \frac{6}{25} = \frac{12}{25}$$

b) 8 green



8) 23 marbles

a) $\frac{8}{23}$

b) $\frac{9}{23} \times \frac{8}{22} \times \frac{7}{21} = \frac{12}{253} = 4.79\%$

c) $\frac{17}{23}$ (NOT)

d) $\frac{17}{23} \times \frac{17}{23} = \frac{289}{529} = 55\%$

#9-16 CREATE TOTALS ON TABLE

9) $\frac{39}{334}$

13) $\frac{39}{106}$

10) $\frac{76}{362}$

14) $\frac{76}{161}$

11) $\frac{48}{334}$

15) $\frac{58}{362}$

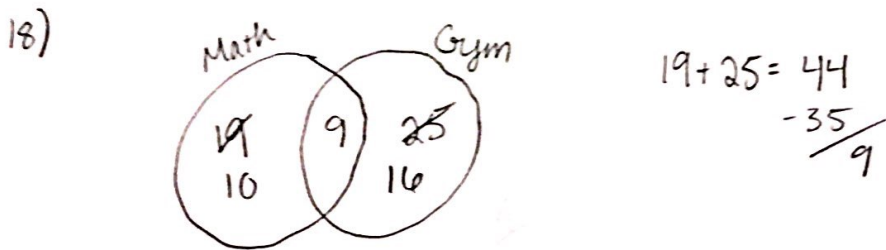
12) $\frac{68}{139}$

16) $\frac{71}{139}$

17) a) Does $P(A) \cdot P(B) = P(A \cap B)$? $\frac{3}{5} \cdot \frac{1}{5} = \frac{3}{25} \neq \frac{3}{10}$ Dep.

b) $P(A) = \frac{3}{4}$ $P(B) = \frac{2}{5}$ $\frac{3}{4} \cdot \frac{2}{5} = \frac{6}{20} = \frac{3}{10}$ Ind.
(your says NOT)

c) Is $P(B|A) = P(B)$ alone? $\frac{2}{3} \neq \frac{5}{6}$ Dep.



10

19) Theoretical
Out of bag of 38

$\frac{13}{38}$

vs.

20) Experimental
Out of 13 ± picked!

$\frac{7}{13}$