



## Homework 9.2 due May 24th

15 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. A piggy bank contains 4 quarters, 18 dimes, 10 nickels, and 8 pennies. A coin is chosen at random, *not replaced*, then another is chosen. Find each probability.

P (penny, then dime).

- a)  $(8/40)(18/40) = 9\%$                        b)  $26/79 = 33\%$   
 c)  $(8/40)(18/39) = 9.2\%$                        d) 50%

2. A piggy bank contains 4 quarters, 18 dimes, 10 nickels, and 8 pennies. A coin is chosen at random, *not replaced*, then another is chosen. Find each probability.

P (quarter, then nickel).

- a)  $(4/40)(10/39) = 2.6\%$                        b)  $(4/40)(10/40) = 2.5\%$   
 c)  $14/80 = 17.5\%$                        d) 25%

3. A piggy bank contains 4 quarters, 18 dimes, 10 nickels, and 8 pennies. A coin is chosen at random, *not replaced*, then another is chosen. Find each probability.

P (both dimes).

- a)  $(18/40)(18/40) = 20.3\%$                        b)  $(18/40)(17/39) = 19.6\%$   
 c)  $35/79 = 44.3\%$                        d) 32%

4. A piggy bank contains 4 quarters, 18 dimes, 10 nickels, and 8 pennies. A coin is chosen at random, find the probability,

P ( it is a dime or a penny).

- a)  $18/40 + 8/40 = 65\%$                        b)  $26/80 = 32.5\%$   
 c)  $26/100 = 26\%$                        d)  $8/40 + 18/39 = 66.1\%$

5. A piggy bank contains 4 quarters, 18 dimes, 10 nickels, and 8 pennies. A coin is chosen at random, find the probability one coin drawn is either silver or a penny?

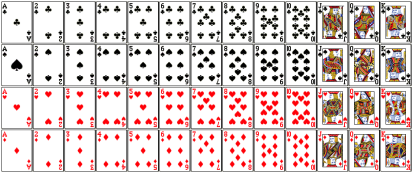
- a)  $32/40 + 8/40 = 100\%$   b)  $32/80 + 8/80 = 50\%$   
 c) 0  d)  $14/40 + 8/40 = 55\%$

6. Find the probability of each set of independent events.  
drawing a black checker from a bag of 6 black checkers and 4 red checkers, replacing it, and then drawing another black checker.

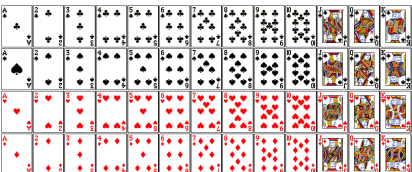
- a) 100%  b)  $(6/10)(4/10) = 24\%$   
 c)  $(6/10)^2 = 36\%$   d)  $6/10 = 60\%$

7. Find the probability of each set of independent events.  
rolling a six on the first roll of a 1-6 number cube and rolling an odd number on the second roll of the same cube.

- a)  $(1/6)(1/2) = 1/12$   b)  $(6/6)(1/2) = 1/2$   
 c)  $(1/6)(1/3) = 1/18$   d) 25%

8.  If you draw one card from a standard deck, what is P(card is red or a two)?

- a)  $1/2 = 50\%$   b)  $30/52$   
 c)  $1/2 + 4/52 = 57.7\%$   d)  $1/2 + 4/52 - (2/52) = 28/52 = 53.8\%$

9.  If you draw one card from a standard deck, what is P(the card is odd-numbered and red)?

- a)  $16/52 = 30.8\%$   b)  $8/52 = 15.4\%$   
 c) 50%  d) 25%

10. A standard die is rolled twice. Find each probability.

P (odd numbers both times)

a)  $1/2 = 50\%$

b)  $(1/2)(1/2) = 25\%$

c)  $1/2 + 1/2 = 100\%$

d)  $3/10 = 30\%$

11. A standard die is rolled twice. Find each probability.

P (both perfect squares)

a)  $1/2$

b)  $1/4$

c)  $2/3$

d)  $1/9$

12. A jar contains 8 green, 4 blue, 10 red, and 2 yellow Skittles. A Skittle is randomly drawn, REPLACED, then another is drawn. Find each probability.

P (red, then yellow)

a)  $12/24 = 50\%$

b)  $(10/24)(2/24) = 3.5\%$

c)  $(10/24) + (2/23) = 50.4\%$

d)  $25\%$

13. A jar contains 8 green, 4 blue, 10 red, and 2 yellow Skittles. A Skittle is randomly drawn, NOT replaced, then another is drawn. Find the probability.

P(both red)

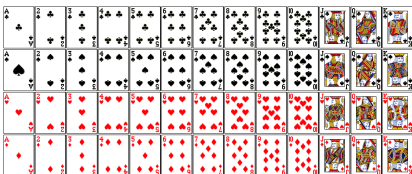
a)  $20/24 = 83.3\%$

b)  $(10/24)^2 = 17.4\%$

c)  $10/24 = 41.7\%$

d)  $(10/24)(9/23) = 16.3\%$

14.



If you draw one card from a standard deck, what is P(the card is black or red)?

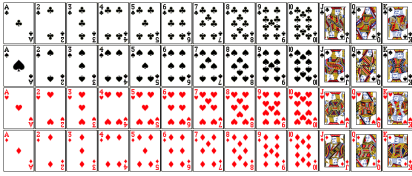
a)  $1/2 + 1/2 = 100\%$

b)  $(1/2)(1/2) = 25\%$

c) cannot be answered

d)  $33\%$

15.



Drawing one card from the deck,  $P(\text{card is red and even-numbered})$ .

Which results are correct?

a)  $10/52$

b) 19.2%

c)  $(26/52) + (16/52)$

d) 80.7%