

HOMWORK: ML #1 Over all Practice

Name _____

1) If you roll a die what is the probability of getting a number greater than 2?

Outcomes 1 2 3 4 5 6 $\Rightarrow P(>2) = \frac{4}{6}$

2) In a standard deck of cards what is the probability of getting a heart?

52 cards
13 hearts
 $P(\text{heart}) = \frac{13}{52} = \frac{1}{4}$

3) There are green, red and yellow marbles in a bag. If $\frac{1}{3}$ of the marbles are yellow and $\frac{4}{9}$ are red, what is the probability of getting a green.

$\frac{1}{3} + \frac{4}{9} + P(\text{Green}) = 1$
 $\frac{3}{9} + \frac{4}{9} + \frac{x}{9} = \frac{9}{9}$ $x = 2$, so $\frac{2}{9}$

4) You have been flipping cards and so far you have flipped 8 spades out of a total of 24 flips. Based on this probability how many spades would you expect at 42 flips?

$\frac{8}{24} = \frac{x}{42}$ $\frac{336}{24} = \frac{24x}{24}$
 $14 = x$

5) You rolled a die and the results are in the chart below. How many times would you expect to get 4 out of 60 rolls, based on the probability of the chart?

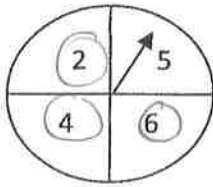
Outcomes \rightarrow
exp result \rightarrow

NUMBER	1	2	3	4	5	6
# of Rolls	5	4	6	3	7	5

total Rolls = 30 rolls
 $P(4) = \frac{3}{30}$

$\frac{3}{30} = \frac{x}{60}$ $x = 6$
 $\frac{180}{30} = \frac{30x}{30}$

i) Based on the spinner, what is the probability of getting an even number? What is the likelihood?



$\frac{3}{4}$; highly likely

7) Karen has a bag of mixed candies. She has 2 green, 6 yellow, and 2 red. What is the probability that Karen will pick a yellow candy?

$2 + 6 + 2 = 10$

- A. impossible B. equally likely $P(\text{yellow}) = \frac{6}{10}$
C. highly likely D. less likely

8) Billy tosses a coin 50 times, and it lands on heads 19 times and tails 31 times. What is the experimental probability of landing on heads?

$P(\text{heads}) = \frac{19}{50}$