Simple Probability - Outcomes

1. What is probability? How is it calculated?

2. Determine which of the following are valid values for probability.

a) P(A) = 0.4 b) P(B)	$=\frac{7}{3}$	c) P(C) = 100	d) P(A) = $\frac{4}{5}$		
Valid or Invalid Va	lid or Invalid	Valid or In	valid Valid or Ir	nvalid	
e) P(A) = 3.5 f) P(B) = Valid or Invalid Va	= 20% lid or Invalid	g) P(C) = 110% Valid or In	h) P(A) = 0 valid Valid or Ir	nvalid	
3. Determine if the events are: (I)mpossible, (UN)likely, (EQ)ually likely, (L)ikely or (C)ertain to happen.					
a) Selecting a red marble from a bag of 5 red & 2 green marbles.	b) Getting a head coin.	l when flipping a	c) Selecting a spade from a cards.	a deck of	
I or UN or EQ or L or C	I or UN or	EQ or L or C	I or UN or EQ or L	or C	
d) Selecting a green marble from a bag of 5 red & 2 green marbles.	e) Average Temp December is less	erature in Alaska in than 30°F	f) Getting a yellow marble bag of 5 red & 2 green ma	from a rbles.	
I or UN or EQ or L or C	I or UN or	EQ or L or C	I or UN or EQ or L	or C	
g) You roll a 2 on a die.	h) You roll an eve	en number on a die.	i) The next week on has 7	days in it	
I or UN or EQ or L or C	I or UN or	EQ or L or C	I or UN or EQ or L	or C	

4. A Bag of marbles has 4 yellow, 5 red, and 1 purple. Create a situation that would satisfy the following:

a) Something that is IMPOSSIBLE to	b) Something that is EQUALLY	c) Something that is LIKELY to
happen.	LIKELY to happen.	happen.

5. Describe a situation that would satisfy the following: (You can not use something mentioned above)

a) Something that is LIKELY to	b) Something that is EQUALLY	c) Something that is CERTAIN to
happen.	LIKELY to happen.	happen.

6. Determine the basic probabilit

a) Given a bag of marbles with 2 green, 3 yellow and 5 red, what is the:

P(Green) =	P(Red) =					
b) Given a standard deck of cards, what is the :						
P(Diamond) =	P(Diamond) = P(Jack) =		1) =			
P(Ace) =	P(Face Card) =	P(Red 8) =				
c) Given the spinner, w	hat is the:					
Red Red	P(Red) =	P(White) =				
Red Blue Blue Blue	P(Green) =	P(Blue) =	_			
d) Given a bag of marbl	les, what is the:					
	P(Black) =		P(Black) =			
	P(White) =		P(White) =			
e) Given the spinner, w	P(Swirl) = hat is the:		P(Swirl) =			
	P(number divisible by 3) =	P(a factor of 12	2) =			
	P(number greater than 10) =	P(factor of 10)	=			
5 0 1	P(prime #) = (1 isn't prime)	P(even number	r) =			
f) Given the roll of 2 dice and their values are summed, what is the:						
P(sur	m of 12) =	P(sum of 7) =	:			
P(sur	m of 4) =	P(even sum)	=			
g) Given two 4 sided dice (vertex values of 1, 2, 3, 4) and their values are summed, what is the:						



P(sum of 2) = _____

P(sum of 5) = _____