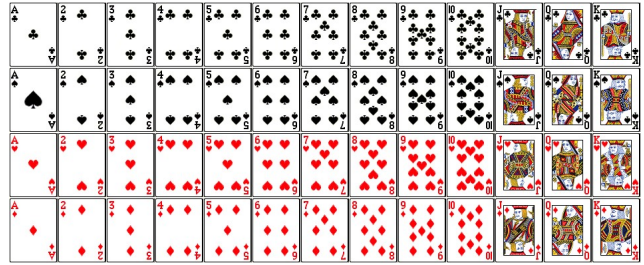


Basic Probability Practice #7

1. A deck of cards has 52 cards in four suits (clubs, spades, hearts, diamonds) from ace (1) to king:



If I shuffle a deck and draw a card at random what is the probability I get:

- a black King?
 - a club?
 - an Ace?
2. If I roll a fair six-sided dice, what is the probability that I get a:



- a six?
- an even number?
- not a one?

3. In another bag there are four white, two black and four striped marbles. If I draw one out at random, what is the probability it is:



- a black marble?
- not a white marble?
- a polka-dotted marble?

4. The sex and where they live is shown for students in a class:

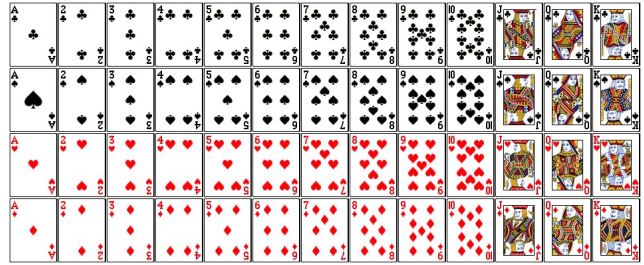
	In the city	Outside the city	Total
Boys	12	4	16
Girls	8	6	14
Total	20	10	30

What is the probability a random student from the class:

- is a girl?
 - is a boy or who lives outside Hamilton?
 - lives in the city, if they are a boy?
5. What is the probability a random person in the world is born on a Tuesday?

Answers : Basic Probability Practice #7

1. A deck of cards has 52 cards in four suits (clubs, spades, hearts, diamonds) from ace (1) to king:



If I shuffle a deck and draw a card at random what is the probability I get:

- a) a black King? $\frac{2}{52}$ or $\frac{1}{26}$
 b) a club? $\frac{13}{52}$ or $\frac{1}{4}$
 c) an Ace? $\frac{4}{52}$ or $\frac{1}{13}$

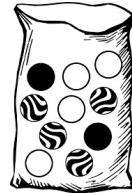
2. If I roll a fair six-sided dice, what is the probability that I get a:



- a) a six? $\frac{1}{6}$
 b) an even number? $\frac{3}{6}$ or $\frac{1}{2}$
 c) not a one? $\frac{5}{6}$

3. In another bag there are four white, two black and four striped marbles.

If I draw one out at random, what is the probability it is:



- a) a black marble? $\frac{2}{10}$ or $\frac{1}{5}$ (or 20%)
 b) not a white marble? $\frac{6}{10}$ or $\frac{3}{5}$ (or 60%)
 c) a polka-dotted marble? 0 (or $\frac{0}{10}$ or 0%)

4. The sex and where they live is shown for students in a class:

	In the city	Outside the city	Total
Boys	12	4	16
Girls	8	6	14
Total	20	10	30

What is the probability a random student from the class:

- a) is a girl? $\frac{14}{30}$ or $\frac{7}{15}$ (or 46.67%)
 b) is a boy or who lives outside Hamilton? $\frac{24}{30}$ or $\frac{4}{5}$ (or 80%) all but the 6 city girls
 c) lives in in the city, if they are a boy? We ignore the girls and just look at the boys

Of those 16 boys, 12 are city, so $\frac{12}{16}$ or $\frac{3}{4}$ (or 75%)

5. What is the probability a random person in the world is born on a Tuesday?

$\frac{1}{7}$ since any day is equally likely.