Notes 10.3 Probability

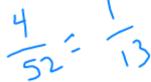
Probability of an Event:

Example 1: You roll a standard six-sided die. Find the probability of:

$$\frac{3}{6} = \frac{1}{2}$$

Example 2: You pick a card from a standard deck of cards. Find the probability of:

a) picking an 8



b) a red king



Example 3: There are 12 people on your gym class baseball team. Your teacher draws names one by one to determine the batting order.

a) What is the probability that the students will bat in order for height (increasing or decreasing)?

 $\frac{2}{12^{1}} = \frac{2}{12 P_{12}}$

479,001,600

235,500,800

b) What is the probability that 2 of the 5 females on the team bat first?

54 109 & 7 6 5 4 2.2 L 5P2 * 10P10 1211 109 8 7 6 5 4 5 2 1 . 12P12

Experimental Probability:

Example 4: On a recent History exam, 7 students earned an A, 12 earned a B, 8 earned a C, 1 earned a D and 3 earned an F. What is the probability that a randomly chosen student in this history class received a C or better?

$$\frac{\text{Co'B6'}}{\text{GII}} = \frac{8+12+7}{31}$$

ODDS: infavor of event A: Hot outcomes in A Hot outcomes Not in A

Example 5: A marble is drawn from a bag containing 6 red, 12 yellow and 9 black marbles.

a) Find the odds in favor of drawing a red marble.

b) Find the odds against drawing a black marble.

$$\frac{18}{9} = \frac{2}{1}$$