

PRECALC BE ~ WEDNESDAY 1-26-10

NOTE: CIRCULAR PERMUTATIONS THAT ARE "the same when turned over" must have the number of permutations divided by 2. $\Rightarrow$ if CW $\neq$ CCW are different $\Rightarrow$ normal circular permutations. If CW $\neq$ CCW are same $\Rightarrow$ reduce total by dividing by 2.

Homework review: Pg. 849 # 4-11

$$\textcircled{4} \text{ KANGAROO } \Rightarrow \frac{8!}{2!2!} = \boxed{10,080}$$

$$\textcircled{5} \text{ Classical } \Rightarrow \frac{9!}{2!2!2!2!} = \boxed{22,680}$$

$$\textcircled{6} \frac{14!}{2!4!5!2!} = \boxed{7,567,560}$$

⑦ Football Huddle $\Rightarrow \frac{11!}{11} = \boxed{3,628,800}$

⑧ Circular 8 jewels on necklace $\Rightarrow$ (Assume CW/CCW matters) $\Rightarrow$ cannot flip

$$\frac{8!}{8} = \boxed{5040}$$

⑨ Circular 12!

$$\frac{12!}{12} =$$

⑩ 5 beads $\Rightarrow$ can flip $\Rightarrow$ CW/CCW DOES NOT matter

(linear - relative to knot) $\Rightarrow \div 2 \div 2$

$$\Rightarrow \frac{5!}{2} = \boxed{60}$$

⑪ 9 objects

Re-peats { 5 are same $\Rightarrow$ dots
2 are same $\Rightarrow$ dashes
2 are same $\Rightarrow$ space

$$\therefore \frac{9!}{5!2!2!} = \boxed{756}$$

$$\text{PROBABILITY} \Rightarrow \frac{\text{Successes}}{\text{Total}}$$

$$\text{ODDS} \Rightarrow \frac{\text{Successes}}{\text{Failures}}$$

② 4 R, 5 G, 1 BLUE

$$P(\text{blue}) = \frac{1}{10} \text{ or } 10\%$$

$$\text{ODDS}(\text{blue}) = \frac{1}{9} \text{ or } 1:9$$

② A boxer that is a 3:2 favorite would be expected to win 3 of every 5 matches.

Homework: Pg 849 #12, 16, 17, 18, 21,
Pg 856 #26-34.