

BE-PRECALC Friday 2-5-10

- ① How many ways can 7 white crayons be arranged if they are taken 3 at a time?
 - ② How many ways can 5 blue crayons be arranged if they are taken 1 at a time?
 - ③ How many ways can 12 crayons be arranged taken 4 at a time?
-

① $7C_3$ ② $5C_1$ ③ $12C_4$

• Return/return Exam 1

Problem 6 $\Rightarrow$ Homework Worksheet

7 white, 5 blue crayons, $P(\geq 3 \text{ WHITE})$

WAYS 3 WHITE
crayons can be
arranged
(of 7)

WAYS 1
• blue crayon
can be arranged
(of 5)

FUNDAMENTAL
COUNTING PRINCIPLE

$$\frac{7C_3 \cdot 5C_1}{12C_4} + \frac{7C_4 \cdot 5C_0}{12C_4}$$

total ways 12
crayons can be
arranged taken 4
at a time

$$\frac{35 \cdot 5}{495} + \frac{35}{495} = \frac{210}{495} = \frac{42}{99} = \boxed{\frac{14}{33}}$$

• SIMULATION?