

11/ 4R, 3B, 2C      C<sub>1</sub> related R<sub>1</sub>

a)  $\frac{4!}{4!} \cdot \frac{3!}{3!}$

b)  $P(C_1 \text{ next to } R_1)$

ways  
 $= 4! \cdot 3! \cdot 2!$   
 $= 288$

$$= \frac{3! \times 2 \times 3!}{4! \cdot 3! \cdot 2!}$$

		<u>turn over</u>
✓ Y <u>RR</u> G	$\frac{3!}{2!} = 3$	2
✓ Y <u>RR</u> <u>GG</u>	$\frac{4!}{2!2!} = 6$	4
-		
✓ Y <u>RR</u> <u>GGG</u>	$\frac{5!}{2!3!} = 10$	7
✓ Y <u>R</u> <u>GG</u>	$\frac{3!}{2!} = 3$	2
✓ Y <u>R</u> <u>GGG</u>	$\frac{4!}{3!} = 4$	2
✓ Y <u>R</u> <u>GGGG</u>	$\frac{5!}{4!} = 5$	3
Y <u>R</u> <u>GGGGG</u>	$\frac{6!}{5!} = 6$	3
✓ Y <u>RR</u> <u>GGG</u>	$\frac{6!}{2!4!} = 15$	<u>9</u>
<u>even</u> normal T - # single color doubles!		
<u>odd</u>	"	- leftover