

Semester 2 Extra Practice #4

1. In how many ways can five kids sit on a merry go round with 5 horses?
2. How many permutations of the letters of ALFALFA are there?
3. In a single grab, what is the probability of selecting 4 red and 3 green from 7 red and 8 green marbles?
4. Alex can read between 4:00 and 4:30 every day. What is the probability that he reads between 4:03 and 4:09?
5. In how many ways can you choose 3 rocks from 5 rocks?
6. There are 7 kindergartners. In how many ways can they be lined up for recess?
7. In a box containing 3 red, 5 yellow and 6 purple, what is the probability of selecting a purple marble?
8. Six runners are in a race. In how many ways can 4th 5th and 6th place be awarded?
9. Mom bought Sally 5 different pair of pants and 4 different shirts. How many different outfits are possible.
10. There are 16 members of Glee Club. How many different ways can Treasurer, Recorder, and Manager be chosen?
11. After rolling two numbered cubes, what is the probability of rolling:
 - a) a sum less than 5 or a multiple of 4?
 - b) A sum greater than 8 or a sum of 5?

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1. $(5 - 1)! = 24$

2. $\frac{7!}{3!2!2!} = 210$

3. $\frac{1960}{6435} = \frac{392}{1287}$

4. $\frac{6}{30} = \frac{1}{5}$

5. 10

6. $7! = 5040$

7. $\frac{6}{14} = \frac{3}{7}$

8. 120

9. $5 \cdot 4 = 20$

10. 3360

11. $\frac{6}{36} + \frac{9}{36} - \frac{3}{36} = \frac{12}{36} = \frac{1}{3}$

12. $\frac{10}{36} + \frac{4}{36} = \frac{14}{36} = \frac{7}{18}$

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