

In a bag of marbles, there are 3 red, 4 blue, and 5 green. Find the following:

13. Drawing one marble, P(Red or Blue)  $\frac{3}{12} + \frac{4}{12} = \frac{7}{12}$   
 Are these mutually exclusive, or overlapping?

$n = 12$

ME

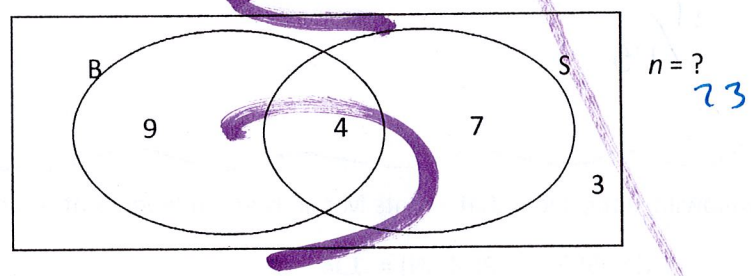
12. Drawing 2 marbles with replacement, P(Green and Green)

$\frac{5}{12} \cdot \frac{5}{12} = \frac{25}{144} \approx .173$

11. Drawing 2 marbles without replacement, P(Blue and Green)

$\frac{4}{12} \cdot \frac{5}{11} = \frac{20}{132} = \frac{5}{33} \approx .151$

The following diagram represents kids who own bikes and/or skateboards in a certain neighborhood. Use it to calculate the following.



10.  $P(B \cap S) = \frac{4}{23}$

9.  $P(B \cup S) = \frac{20}{23}$

8.  $P(S) = \frac{11}{23}$

7.  $P(B') = \frac{10}{23}$

6.  $P(S|B) = \frac{4}{13}$

5. In a Coordinate Algebra class, 17 students were male and 13 students were female. Out of those students, 15 of the guys and 11 of the girls passed the EOC. Construct a contingency table with this information:

	Males	Females	
Passed	15	11	26
Did not Pass	2	2	4
	17	13	30
	M	F	

Use the table to find the following probabilities:

4. P(Girl who passed the EOC)

$$\frac{11}{30} \approx .367$$

3. P(Boy or someone who didn't pass)

$$\frac{19}{30}$$

$$P(B) + P(\sim P) - OL$$

$$\frac{17}{30} + \frac{4}{30} - \frac{2}{30}$$

2. P(Passing grade | girl)

$$\frac{11}{13}$$

1. Given the following data, show that events M and N are independent or not independent.

$$P(M) = .238 \quad P(N) = .562 \quad P(M \cap N) = .134$$

yes ind.

$$.238 \times .562 = .134$$

$$.1338 \rightarrow$$

2219

