

Bellwork Alg 2B Monday, April 9, 2018

1. Six students are to be selected for a debate. In the class there are 9 girls and 8 boys. Find the number of ways of selecting these six members if:

a) You will select six girls or six boys.

b) You will select 3 girls and 3 boys.

2. The results of a survey are shown below. Find each probability as a fraction without reducing.

| | Grapes | Apples | Oranges | Bananas | Total |
|--------|--------|--------|---------|---------|-------|
| Female | 20 | 31 | 29 | 11 | 91 |
| Male | 18 | 40 | 14 | 20 | 92 |
| Total | 38 | 71 | 43 | 31 | 183 |

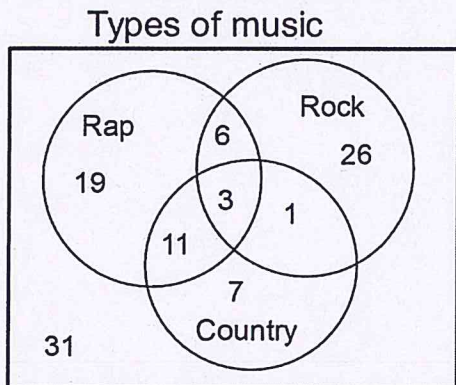
a) $P(\text{Oranges or Bananas})$

b) $P(\text{Male and Apples})$

c) $P(\text{Grapes or Female})$

d) $P(\text{No Bananas})$

3. The results of a survey are shown below. Find each probability as a fraction without reducing.



a) $P(\text{Rap but not Country})$

b) $P(\text{Rock or Rap})$

c) $P(\text{Not Country})$

d) $P(\text{Country and Rap but not Rock})$

1. Six students are to be selected for a debate. In the class there are 9 girls and 8 boys. Find the number of ways of selecting these six members if:

a) You will select six girls or six boys.

$${}^9C_6 + {}^8C_6 = 84 + 28 = 112$$

b) You will select 3 girls and 3 boys.

$${}^9C_3 \cdot {}^8C_3 = 84 \cdot 56 = 4704$$

2. The results of a survey are shown below. Find each probability as a fraction without reducing.

| | Grapes | Apples | Oranges | Bananas | Total |
|--------|--------|--------|---------|---------|-------|
| Female | 20 | 31 | 29 | 11 | 91 |
| Male | 18 | 40 | 14 | 20 | 92 |
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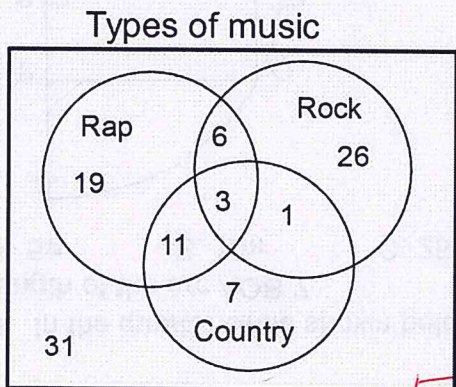
a) $P(\text{Oranges or Bananas}) = \frac{74}{183}$

b) $P(\text{Male and Apples}) = \frac{40}{183}$

c) $P(\text{Grapes or Female}) = \frac{109}{183}$
 $38 + 91 - 20$

d) $P(\text{No Bananas}) = \frac{152}{183}$
 $183 - 31$
 or
 $38 + 71 + 43$

3. The results of a survey are shown below. Find each probability as a fraction without reducing.



a) $P(\text{Rap but not Country}) = \frac{25}{104}$
 $19 + 6$

b) $P(\text{Rock or Rap}) = \frac{66}{104}$
 $104 - 31 - 7$
 or
 $19 + 6 + 3 + 11 + 1 + 26$

c) $P(\text{Not Country}) = \frac{82}{104}$
 $104 - 1 - 3 - 11 - 7$
 or
 $31 + 19 + 6 + 26$

d) $P(\text{Country and Rap but not Rock}) = \frac{11}{104}$