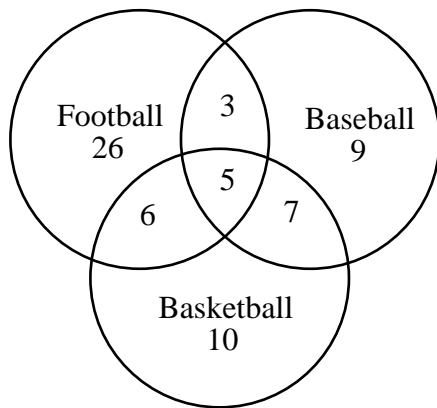


NAME: _____

P.I. A.RP.11: Use a Venn diagram to support a logical argument

1. Refer to the Venn diagram below. What is the probability that a student plays football or baseball?



- [A] $\frac{3}{5}$ [B] $\frac{7}{16}$ [C] $\frac{7}{10}$ [D] $\frac{28}{33}$

2. Of a group of students questioned, 6 belong to the Music Club, 8 belong to the Math Club, 5 belong to both. Draw a Venn diagram to show the information.

3. Eighteen students sing in the chorus and twelve play in the jazz band. Five students are in both the chorus and the band. What is the total number of students who participate in these activities?

[A] not enough information given

[B] 35 [C] 30 [D] 25

4. Out of 18 people in the Glee club, 11 have dogs and 7 have cats. Four people have both cats and dogs. How many club members have only cats?

[A] 4 [B] 3 [C] 7 [D] 5

NAME: _____

5. Seventy-five students read books. Fifty-two students read non-fiction books. Twenty-eight students read adventure books. How many students read both non-fiction and adventure?

[A] 23 [B] 75 [C] 80 [D] 5

6. Out of 28 students, 12 have at least one brother and 13 have at least one sister. Eight students have both brothers and sisters. How many students do not have either a brother or a sister?

[A] 11 [B] 5 [C] 4 [D] 8

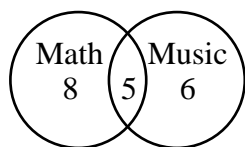
7. Nine of the 26 students in algebra class are also in the Math Club. Six of those students are also in the Science Club. What fraction of the class is in the Math Club but not the Science Club?

[A] $\frac{15}{26}$ [B] $\frac{6}{26}$ [C] $\frac{9}{26}$ [D] $\frac{3}{26}$

8. There are 20 people in Susie's class. When Susie took a poll about winter sports, she found that nine people enjoy figure skating, six people enjoy skiing, one person plays ice hockey, and four people simply do not enjoy cold weather. In addition, she found out that three of those people who enjoy figure skating also enjoy skiing. Draw a diagram to figure out how many people enjoy figure skating but not skiing.

[A] 3 [B] 1 [C] 6 [D] 4

[1] D



[2] _____

[3] D

[4] B

[5] C

[6] A

[7] D

[8] C