WS: Venn Diagrams Name: _____ Date: _____

1 2 3 4 5 6 7 8

Draw a Venn Diagram to represent each situation. Then, answer the question.

1. In a class of 50 students, 18 take Chorus, 26 take Band, and 2 take both Chorus and Band. How many students in the class are not enrolled in either Chorus or Band?

2. In a school of 320 students, 85 students are in the band, 200 students are on sports teams, and 60 students participate in both activities. How many students are involved in either band or sports

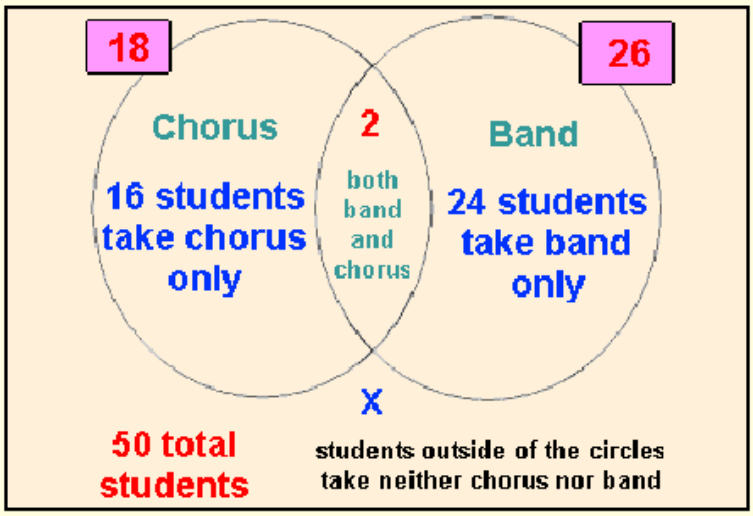
3. A veterinarian surveys 26 of his patrons. He discovers that 14 have dogs, 10 have cats, and 5 have fish. Four have dogs and cats, 3 have dogs and fish, and one has a cat and fish. If no one has all three kinds of pets, how many patrons have none of these pets?

4. A guidance counselor is planning schedules for 30 students. Sixteen students say they want to take French, 16 want to take Spanish, and 11 want to take Latin. Five say they want to take both French and Latin, and of these, 3 wanted to take Spanish as well. Five want only Latin, and 8 want only Spanish. How many students want French only?

From: http://regentsprep.org/Regents/math/ALGEBRA/AP2/PracVenn.htm

Answers:

1.

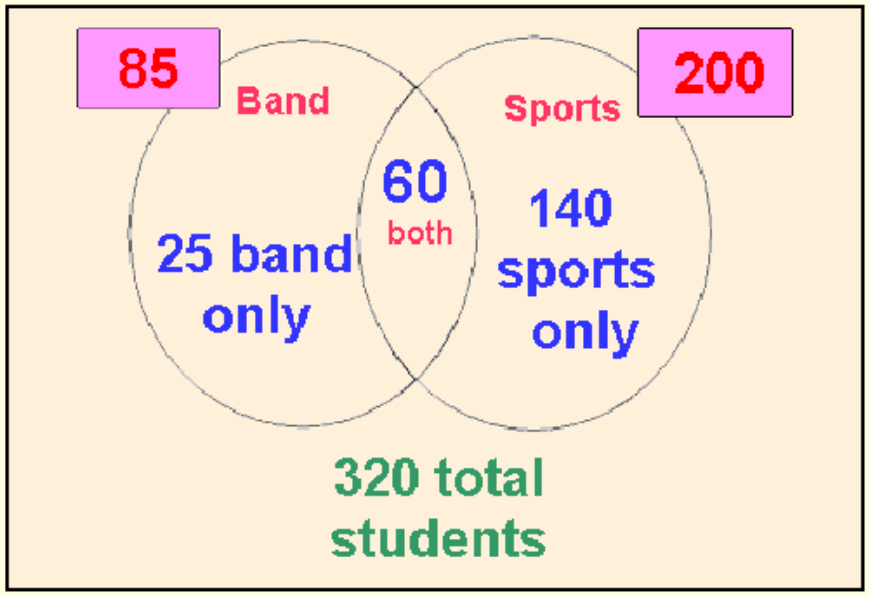


$$16 + 2 + 24 + x = 50$$

$$42 + x = 50$$

$$x = 8 \text{ students}$$

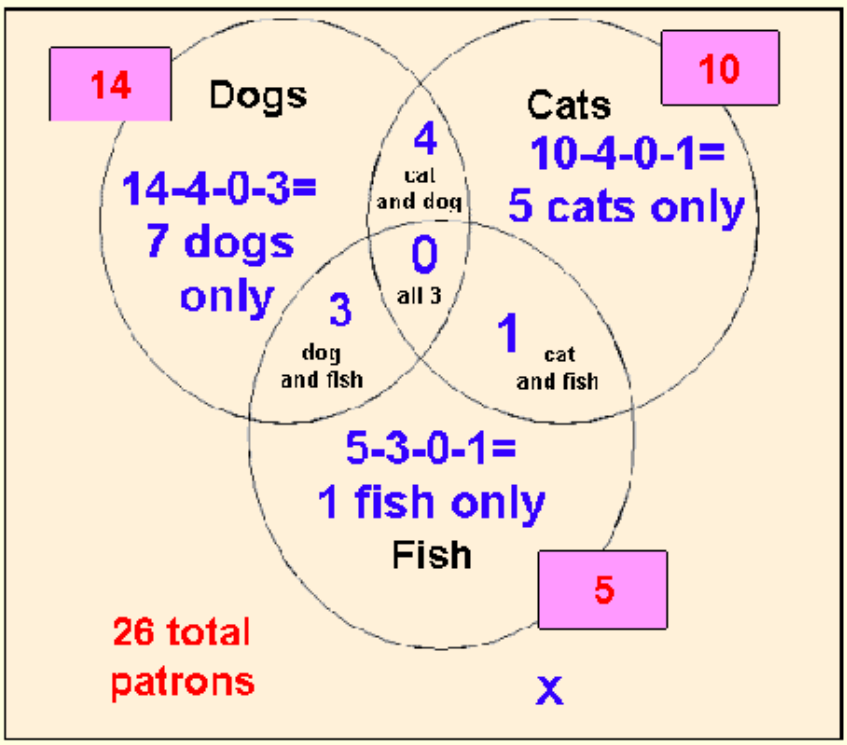
2.



$$25 + 60 + 140 = 225$$

There are 225 students involved in either band or sports.

3.



$7 + 4 + 0 + 3 + 1 + 5 + 1 + x = 26$

$21 + x = 26$

$x = 5$ patrons have none of these animals

4.