

VENN DIAGRAM APPLICATIONS

Name _____

Circle one: 1:30 3:30

Row _____

Use a Venn Diagram to solve the problems.

Include your diagram for credit.

1. In a certain group of 100 customers at Phil's Pizza Palace, 60 customers ordered cheese and pepperoni on their pizza. Altogether 80 customers ordered a pizza with cheese on it and 72 customers ordered pizza with pepperoni on it.
 - a. How many customers ordered cheese on their pizza, but no pepperoni?
 - b. How many customers ordered pepperoni on their pizza, but no cheese?
 - c. How many customers in the group of 100 customers did not order either type of pizza?

2. At a subway stop in New York City, 125 people were asked what newspaper they read. 46 people read the Times, 43 people read the Post, and 65 people read the News. 19 people read the Times and the Post, 18 people read the Post and the News, and 11 people read the Times and the News. 7 people read all three papers.
 - a. How many people read only the News?
 - b. How many people did not read any of the papers?
 - c. How many people read the Post and the News, but not the Times?
 - d. How many people read both the Times and the Post?
 - e. How many people did not read the Times?

3. In a certain Las Vegas Casino, a survey of 125 gamblers was taken and the following data were collected:
 - 71 gamblers played roulette
 - 72 gamblers played poker
 - 80 gamblers played blackjack
 - 33 gamblers played roulette and poker
 - 42 gamblers played roulette and blackjack
 - 47 gamblers played poker and blackjack
 - 11 gamblers played all three.
 - a. How many of these gamblers played only blackjack?
 - b. How many played poker and blackjack but not roulette?
 - c. How many played at least one of these games?
 - d. How many did not play poker?
 - e. How many played poker and roulette?