

**Problems about two (possibly intersecting) sets**

(where there is one correct answer)

name: \_\_\_\_\_

10 am/2 pm

1. There are 28 students in Mr Johnson's class.

- 22 of the students have a fidget spinner or a cell phone.
- 10 students have both a fidget spinner and a cell phone.
- Half of Mr Johnson's students do not have a cell phone.

How many students have a fidget spinner?

2. 18 people will be eating pizza. 12 people like pepperoni. 10 people do not like mushrooms. 3 people like neither mushrooms nor pepperoni. How many people like both mushrooms and pepperoni?

3. There are 24 animals in the petting zoo.

- 10 of the animals are not small enough to pick up
- 18 of the animals are furry
- 4 animals are not furry and are not small enough to pick up.

How many animals that are small enough to pick up are not furry?

4. There are 18 students in Ms. Nelson's class. After school on Thursday, there is a Lego club. After school on Tuesday there is a board game club. Six of the students don't go to either club. Eight students go to Lego club. Nine students go to the board game club. How many students go to Lego club but not board game club?

5. Janet has 24 toy horses.

- 12 of the toy horses are more than 6 inches long.
- 14 of the toy horses are brown.
- 6 horses are neither longer than 6 inches nor brown.

How many toy horses are both more than 6 inches long and brown?

6. Student athletes were surveyed to see whether they played basketball, soccer, or both. Of 100 students surveyed,

- 56 played basketball
- 24 played both basketball and soccer
- 68 played soccer

How many played basketball but not soccer?

How many played soccer and did not play basketball?

7. Make up your own 2-set puzzle problem. Write your puzzle and the Venn diagram or answer that goes with it.