

ACTIVITY

KNOW YOUR NUMEROSITIES

Try testing your number sense with some relative numerosity judgments. That means comparing two groups of objects and knowing which is bigger. Remember, no counting!

YOU'LL NEED:

- a partner
- forty identical objects, like dimes or candies
- a cell phone or stopwatch
- pencil and paper

- 1.** Have your partner sit at a table with their eyes closed.
- 2.** Set up two groups of objects on the table in front of your partner—one smaller than the other. You don't need to use all the objects. Write down the number of objects in each group and the difference between them on the paper.
- 3.** Be ready to start the timer on the phone or stopwatch as soon as your partner opens their eyes.
- 4.** Tell your partner to open their eyes and point to the larger group as fast as they can (without counting).
- 5.** Write down the time it took for your partner to choose—and whether they were correct.

6. Repeat steps one through five, but change the number of items in each group. Again, write down the results.
7. Keep repeating the experiment with different-sized groups. Try small groups like two and three. Try large groups like nineteen and twenty. Try large differences between groups like two and twenty. Or small differences like fifteen and sixteen. What do you notice in your partner's results? When was their fastest time? When was their slowest? Were they more accurate with small numbers or with larger ones? How did the difference between groups affect their accuracy and speed?
8. Switch places with your partner and repeat the entire experiment. What did you notice?

BONUS

Try placing the objects in patterns, like rows of five or triangles. Does that help your accuracy and speed? What if the objects are spread out instead of close together?

