Mr. Rodriguez needs to store 10 test tubes in racks that hold 4 test tubes apiece. How many racks does he need?

Draw a picture.

Write an equation. Let \( r \) be the number of test-tube racks needed.

\[
10 \div 4 = r
\]

Solve the problem. \( r = 2 \, R \, 2 \)

Think: \( R \, 2 \) means that 2 test tubes are still left. Since they must be in a rack, one more rack is needed.

Write the answer in a complete sentence. Mr. Rodriguez will need three test-tube racks.

Mr. Rodriguez could also use racks that hold three test tubes or racks that hold five test tubes. Which racks should he use if he wants each rack completely filled? Explain.