

# MATH MAVEN'S MYSTERIES

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## The Case of the Shifting Shapes

Hello, math detectives. I've heard troubling reports from many neighboring towns today. It seems that Rex Tangle and his band of fantastic Geometricksters are playing pranks in every city they visit. When they show up in a town, shapes suddenly become switched!



It started in Lost Angles, where there were reports that the rectangular office buildings had been changed into Egyptian pyramids!

The next report came from Linefield, a town 3 miles north of Lost Angles. Town officials reported that Rex Tangle had loused up their library. He switched all the square books with round dinner plates!

It wasn't long before we heard from Pyramid Falls, a town east of Linefield. Citizens there claimed that the sinister tricksters changed all the pizza slices into playing cards!

Rex was last spotted heading south from Pyramid Falls.

There is no telling what Rex Tangle and his band of Geometricksters will do next. But there is a way to catch Rex Tangle.

You see, Rex can only travel in a path that forms an exact rectangle. Each corner of the rectangle is a town he visits. Plus, Rex Tangle can only travel 14 miles a day before he loses his shape-changing power. After he's traveled 14 miles, Rex couldn't change a square box into a round ball!

Notes:

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## Solve the Mystery!

Detectives, help me solve this caper by drawing a rectangle that shows the towns that Rex Tangle worked his shape-changing magic.

You know that one length of Rex's journey was 3 miles. You also know that the length of his total journey will be 14 miles. Now use what you know about rectangles to discover which town Rex is planning to visit.

Can you tell me where Rex Tangle and the Geometricksters will appear next?

Circle the correct answer:

- A. Spheresburg, 3 miles east of Lost Angles
- B. Triangle Town, 4 miles south of Pyramid Falls
- C. Squaresville, 4 miles east of Lost Angles
- D. Circle City, 4 miles east of Linefield

Use this space to show your work: