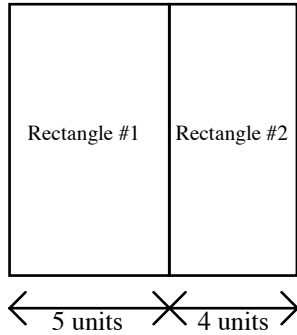


# County Concerns

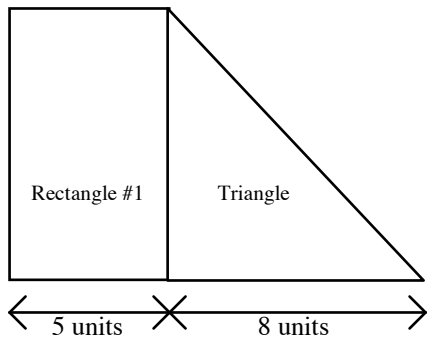
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## Pre-Activity

1. Which of these two rectangles has the greater area? How do you know?



2. Which has the greater area, the rectangle or the triangle? How do you know?

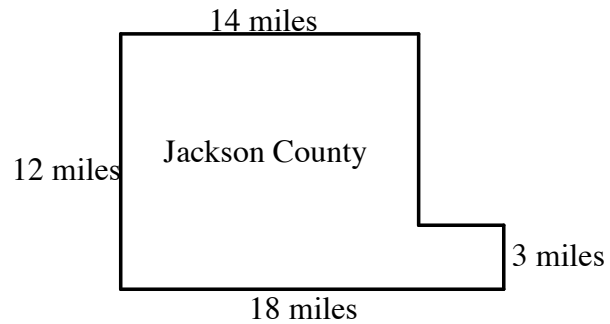


## Task

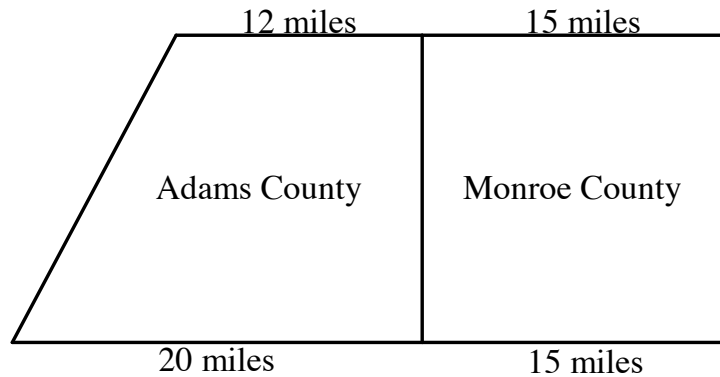
1. The Jackson County Executive Board is considering a proposal to conduct aerial spraying of insecticides to control the mosquito population. An agricultural organization supports the plan because mosquitoes cause crop damage. An environmental group opposes the plan because of possible food contamination and other medical risks.

Here are some facts about the case:

- A map of Jackson County is shown at the right. All county boundaries are on a North-South line or an East-West line.
- The estimated annual cost of aerial spraying is \$29 per acre.
- There are 640 acres in 1 square mile.
- Plan supporters cite a study stating that for every \$1 spent on insecticides, farmers would gain \$4 through increased agricultural production.



- a. What is the area of Jackson County in square miles? In acres?
- b. What would be the annual cost to spray the whole county?
- c. According to plan supporters, how much money would the farmers gain from the spraying program?



All boundaries run directly North-South or East-West, except for the western boundary of Adams County.

2. The Sheriff of Adams County and the Sheriff of Monroe County are having an argument. Each of them believes that their own county is larger than the other county. Who is right? Write an explanation that would settle the argument.