Find the area of non-rectangular figures with partial square units by counting unit squares

Name:

Date:

Warm-up question:

According to the Center for Disease Control and Prevention (CDC), children and adolescents should do 60 minutes or more of physical activity each day. In an effort to meet these recommendations you have been walking and running every day. Unfortunately, the soles of your sneakers have become worn out. You are going to take your shoes to Larry's Shoe Repair to replace the soles. About how many square inches of rubber will Larry need to replace the soles of both of your sneakers? (Use 1 inch graph paper to trace your footprint).

What to wear to workout

When you exercise, you should wear loose-fitting clothes that allow you to move freely. In the summer, wearing lighter colors will help you keep cooler. Dark clothes, which trap light, will help keep you warmer in the winter. Wear layers when it is really cold. It is good to wear hats or baseball caps for shade in sunny weather, and wool or ski caps in the winter to keep your head and body warm. Never wear rubbery or plastic clothing (yes, it's out there!) because it won't allow your sweat to escape and your body can get too hot.

Shoes are also very important. Make sure they are sturdy, fit well, and have heavy cushioned soles and arch supports. If you plan to run, getting shoes fitted by a sports shoe salesperson can be helpful. The wrong fit can be uncomfortable or even hurt you. Socks can be important also. They help absorb sweat to help you avoid blisters. And, they might help keep your shoes from smelling badly!

http://girlshealth.gov
Main task question:

Now that you have your sneakers ready, you need a pair of cotton socks to wear when you exercise. Use your 1 inch grid paper to determine how much cotton you will need for your pair of cotton socks. It is up to you to decide whether you would like to wear shorter (ankle) socks or longer (mid-calf) socks.
Task Debrief:

1. How would you describe what you are trying to find out?

2. Have you tried making an estimate?

3. What strategies will you use or what tools might you need?

4. Which parts of the sock (left, right, top, bottom) do you need to measure?

5. Do you need to measure both the left and right side? Both socks?

6. How will you count partial square units?

7. How would changing the size of the unit change your work? How would this be the same or different if you used square centimeters instead of square inches?

8. How to you count partial square units?

Big Idea of Lesson:

Ticket out the Door:

What is the area of this shape? Explain how you know.