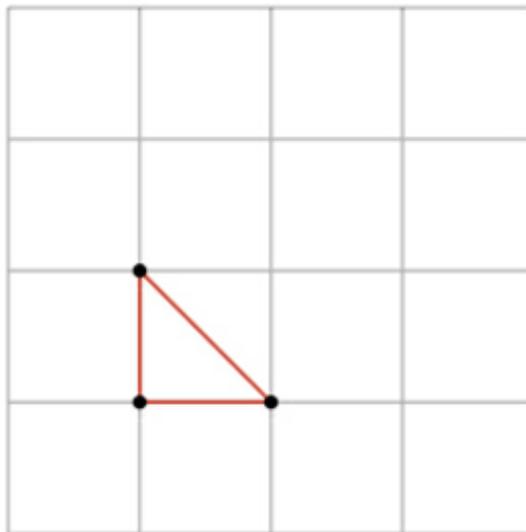


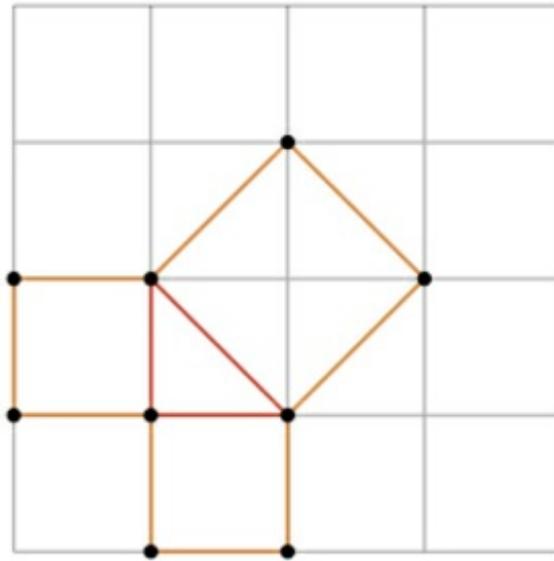
8.G.B Sizing up Squares

Task

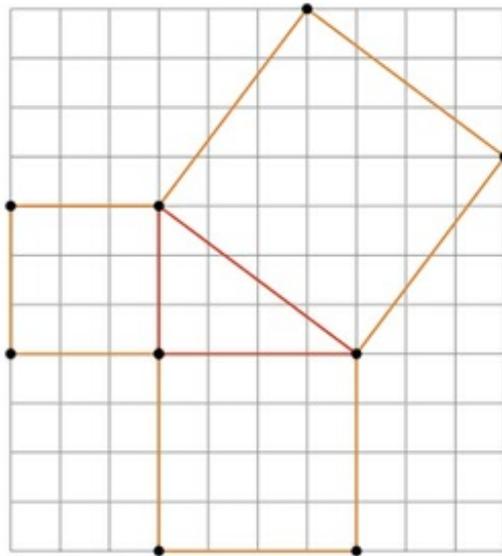
a. Below is a picture of a right triangle on a square grid:



In the next picture, quadrilaterals have been built on each side of the triangle:



- i. Explain why the quadrilateral sharing one side with the hypotenuse of the triangle is a square.
 - ii. Find the areas of the three squares in the picture.
 - iii. Is the sum of the areas of the squares on the legs equal to the area of the square on the hypotenuse?
- b. Below is a second right triangle, with quadrilaterals built on the three sides of the triangle.



- i. What are the areas of the two squares built on the legs of the triangle?
- ii. Find the area of the quadrilateral sharing one side with the hypotenuse of the triangle.
- iii. The quadrilateral sharing one side with the hypotenuse is a square. Is its area equal to the sum of the areas of the squares built on the triangle legs?

