


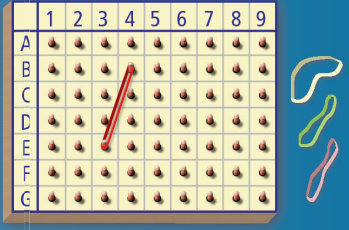
6-7 Solve It!



SOLVE IT!

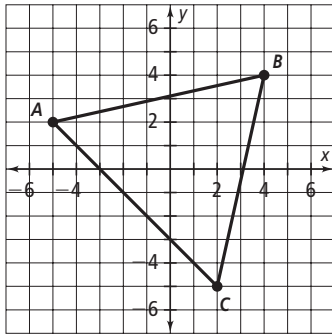
Getting Ready!

You and a friend are playing a board game. Players place rubber bands on their own square grid to form different shapes. The object of the game is to guess the vertices of your opponent's shape. How would you place pieces on the grid shown to complete a right isosceles triangle? Sketch the triangle and justify the placement of each piece.

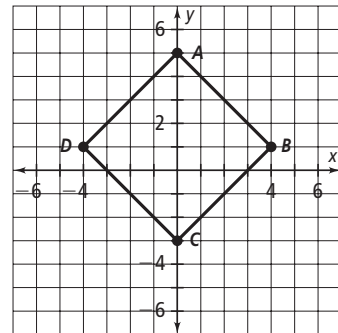


6-7 Lesson Quiz

1. Is $\triangle ABC$ scalene, isosceles, or equilateral?



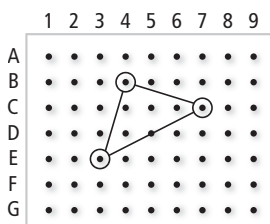
2. Do you UNDERSTAND? What is the most precise classification of the quadrilateral formed by the four segments connecting the midpoints of the sides of the square?



Answers

Solve It!

Answers may vary. Sample:



Using the square grid to count units, the slope of Leg 1 (E3 to B4) is 3. The slope of Leg 2 (B4 to C7) is $-\frac{1}{3}$. $3 \cdot \left(-\frac{1}{3}\right) = -1$, so the legs are \perp and form a rt. \angle . The horiz. distance of Leg 1 is 1 unit, and the vert. distance is 3 units. The horiz. distance of Leg 2 is 3 units, and the vert. distance is 1 unit. Using the

Distance Formula, both legs have a measure of $\sqrt{1^2 + 3^2}$ or $\sqrt{10}$. Since the legs are congruent and perpendicular to each other, the \triangle is a rt. isosc. \triangle .

Lesson Quiz

1. isosceles
2. square