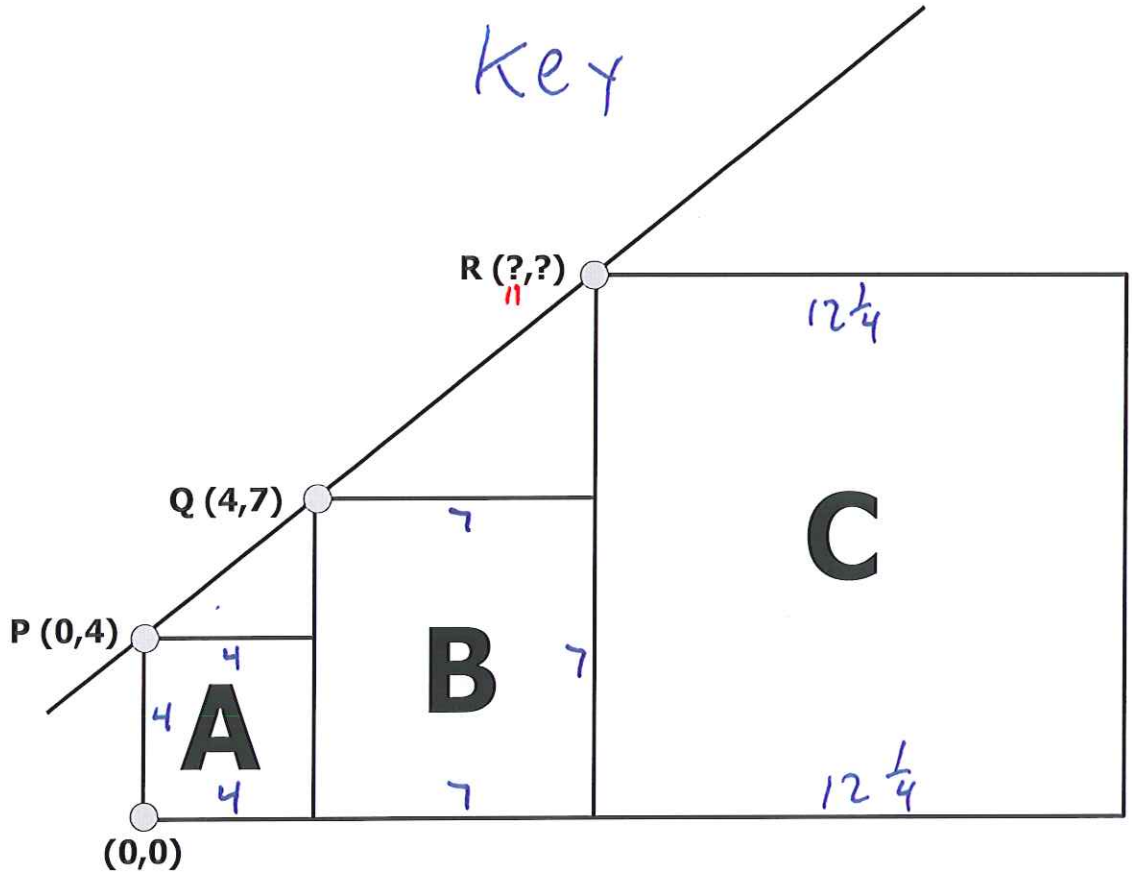
The Prompt MATH TASK

Below is a diagram with points P, Q, and R that are collinear. This means they fall on a straight line. Figures A, B, and C are all squares.

Find the dimensions of each of the squares, A, B, and C.

Key



1st Find slope of line:

$$m = \frac{7-4}{4-0} = \frac{3}{4}$$

2nd Use point R(11, y) and point P(0, 4) and the slope $m = \frac{3}{4}$ to set-up an equation to solve.

$$\frac{y-4}{11-0} = \frac{3}{4}$$

$$4(y-4) = 33$$

$$4y + -16 = 33$$

$$4y = 49$$

$$y = \frac{49}{4} = 12\frac{1}{4}$$

Square A: 4 by 4

Square B: 7 by 7

Square C: $12\frac{1}{4}$ by $12\frac{1}{4}$