ANSWERS

A) _____
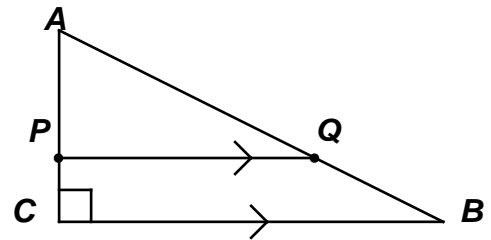
B) _____ : _____

C) _____

A) Given: Right triangle ABC, with $AB = 17$, $BC = 15$
   $\overline{PQ} \parallel \overline{BC}$, $AP : PC = 3 : 1$
   Compute the area of the trapezoid $PQBC$.
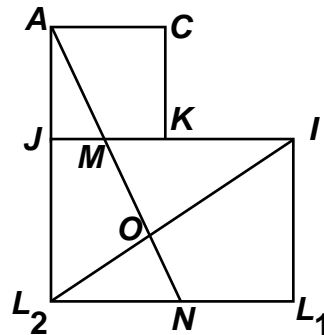

B) $JACK$ is a square with side 2
   JIL_1L_2 is a 3 x 6 rectangle, where $JL_2 < L_2L_1$

   Point M is the midpoint of $\overline{JK}$.
   Points A, M, O, and N are collinear.

   Compute the ratio $\dfrac{NO}{MO}$.

C) In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$, $AD = x + 2$, $AE = \dfrac{x^2}{2}$, $DE = 3x - 2$,

   $DB = 2x + 1$ and $EC = x^2 - 4$.
   Compute BC.