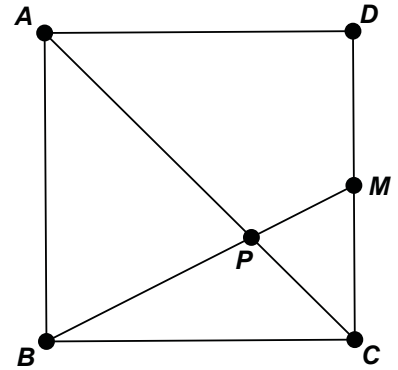




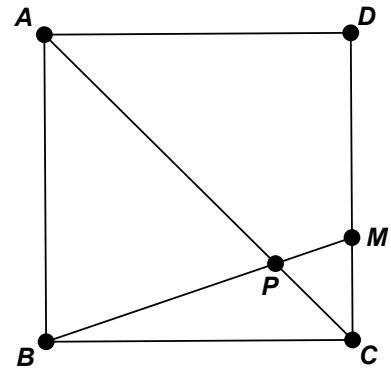
# SQUARE IT UP!

## Student Activity Sheet

- In square  $ABCD$  to the right, point  $M$  is the midpoint of side  $CD$ . Find the ratios of the areas of the four regions ( $\triangle MPC$ ,  $\triangle BPC$ ,  $\triangle APB$ , and quadrilateral  $APMD$ ) that are formed. Justify your result.



- Instead of  $M$  being the midpoint of side  $CD$ , suppose  $M$  cuts side  $CD$  so that  $MD = 2 \cdot CM$ , as seen to the right. What are the ratios of the areas of the four regions?



- Suppose  $M$  cuts side  $CD$  so that  $MD = n \cdot CM$ . What are the ratios of the areas of the four regions?