

## PROBLEM 1.2.3.7.879

Find the area of the shaded region.

Given:  $ABCD$  is a square with side length 10.  $E$  is the midpoint of  $AD$ .  $F$  is the midpoint of  $BC$ .  $EF$  is a line segment connecting the midpoints of  $AD$  and  $BC$ .  $G$  is the midpoint of  $EF$ .  $H$  is the midpoint of  $AB$ .  $I$  is the midpoint of  $CD$ .  $J$  is the midpoint of  $AC$ .  $K$  is the midpoint of  $BD$ .  $L$  is the midpoint of  $AD$ .  $M$  is the midpoint of  $BC$ .  $N$  is the midpoint of  $AB$ .  $O$  is the midpoint of  $CD$ .  $P$  is the midpoint of  $AC$ .  $Q$  is the midpoint of  $BD$ .

