Sketch the image of the pre-image after the given translation. Label each vertex. Label image vertex as $A'$, $B'$, $C'$ etc.

1. Slide 8 left and 5 down.
2. $A(-8, -2); B(-5, -2); C(-8, -6); D(-5, -6)$

\[ (x, y) \rightarrow (x + 8, y + 10) \]

3. Graph and label the polygon determined by the coordinates below, then graph and label the image created by the transformation:

a)
$P(4, 8) Q(2, 6) R(2, 3) S(4, 5)$

\[ (x, y) \rightarrow (x + 4, y - 5) \]

b)
$A(0, 0) B(-6, 0) C(-6, 3)$

\[ (x, y) \rightarrow (x + 6, y + 3) \]
4. Graph and label the polygon determined by the coordinates below, then graph and label the image created by the transformation:

a)  
\[
\begin{align*}
P (5, 3) & \quad Q (7, 4) \\
R (7, 1) & \quad (x, y) \rightarrow (x, y - 5)
\end{align*}
\]

b)  
\[
\begin{align*}
A (-1, 1) & \quad B (1, 1) \\
C (1, -1) & \quad D (-1, -1) \\
(x, y) & \rightarrow (x - 5, y)
\end{align*}
\]

5. Describe the translation from the pre-image to the image.

a) Using words (left, right, up, down, etc.).

b) Using coordinate notation: 
\[
(x, y) \rightarrow (x \quad , y)
\]