Homework #1

1.1 Let $A = (10, 2)$, $B = (7, 7)$, and $C = (1, -5)$. Let $\triangle ABC$ be the triangle formed by these three points where the base side is $\overline{AC}$.

(a) (2 points) Determine the length of the base of $\triangle ABC$.

(b) Determine the equations (in Point-Slope Form) of the lines passing through the following points.

    (i)   (4 points) A and B

    (ii)   (4 points) B and C

    (iii)   (4 points) A and C

(c) (6 points) Determine the height and area of $\triangle ABC$.