3b) We know the horizon is 95cm off the ground near the man, since the given camera height is 95cm and the ground is planar

Using the ratio

Pixel height of man : ~287
Pixel height of ground near
, man to horizon : ~159

$$\frac{Y_{top} - Y_{bottom}}{Y_{camera} - Y_{bottom}} = \frac{V_t - V_b}{V_h - V_b}$$

$$\frac{Y_{top} - 0}{95cm - 0} = \frac{287 - 0}{159 - 0} \Rightarrow Y_{top} = 95 \cdot \frac{287}{159} = \sim 171.4 cm$$