15.5

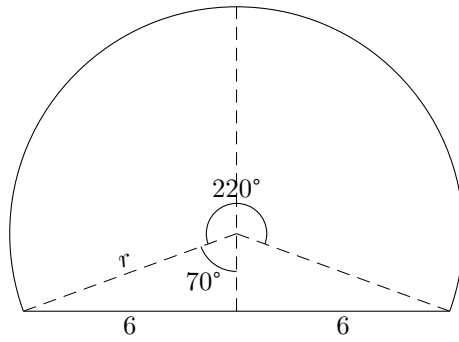$$r = \frac{6}{\sin(70°)} \approx 6{,}39$$

$$h = r + \frac{6}{\tan(70°)} \approx 8{,}57$$