Ch3, Projectile motion recommended problems

9. 
$$v_0 = 12.0 m/s$$

11. 
$$\theta = 7.19^{\circ}$$

12.

a) 
$$\Delta x = 22.6 m$$

b) 
$$\Delta h = 35.9m$$

c) 
$$t = 1.72s$$

13) This problem is super duper hard. I don't know whose idea it was to make it a recommended problem but I officially do not recommend it. If you are really pushing yourself, I'm pretty sure the answer is  $\theta = \arctan(\sqrt(6))$