The designer of the X-Games Rally Cross course is designing the crossover jump. Due to safety concerns, in order to be approved by the insurance company, the ramp’s angle of inclination must be no more than 12o. Her initial design has a ramp that is 8 feet tall and 30 feet long (diagonal).

1. Will her design be approved by the insurance company.
2. What is the maximum height that can be used to meet the 12o requirement if she wishes to keep the ramp 30 feet long?
3. What is the minimum length the ramp can be if she wants to keep the ramp’s height at 8 feet?