The maximum velocity of a roller coaster depends on the vertical drop from the top of the highest hill to the bottom of that hill. The formula: , gives the relationship between maximum velocity, V(h) in feet per second, and height, h in feet.

1. Identity the independent variable, dependent variable. (Must use the letter to identify variable).

2. What is the domain of the radical function V? (Must show how you get the domain)

3. What is the maximum velocity V(h) of the roller coaster when the height h is 66 feet? (Specify and explain your answer in words).

4. What is the maximum velocity V(h) of the Roller Coaster when the height h is 70 ft. (Use calculator to approximate your answer to two decimals).

5. What is the height h of the roller coaster, if its maximum velocity V(h) is 42 feet per second? (Specify and explain your answer in words)