

Powers of 10

The podcast begins by showing a square 1 (10^0) meter on a side. The next square is 10 (10^1) meters on a side, and the next is 100 (10^2) meters. This continues with increasing powers of 10.

For each of the questions below take a guess as to the degree of ten necessary to see the following.

Questions	Guess	Actual
How many degrees are necessary for you to see the entire city of Chicago?		
How many degrees are necessary for you to see the entire U.S.?		
How many degrees are necessary for you to see the entire world?		
How many degrees are necessary until you're out of the solar system?		
How many degrees are necessary until we're out of the galaxy?		

As you watch the video, fill in the squares with the correct answers.

Write a brief paragraph comparing your guesses to the actual answers. Some questions to keep in mind: Were your guesses larger or smaller than the actual answers? Did the numbers surprise you? Did the distance grow faster or slower than you thought it would?

Is this linear or exponential?