1.2.1 Video: Limits on Growth: Verhulst's Model

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The Malthusian growth model $\frac{dP}{dt} = rP$ may not be the most reasonable model for many populations. How can we create a more realistic model for population growth that captures limitations on population growth?

In this section, we'll learn about the **logistic population model**, which is a modification of the exponential model to include the **carrying capacity** of the population in its environment. We'll then explore the long-term behavior of populations according to this model.

Video

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[MUSIC PLAYING]

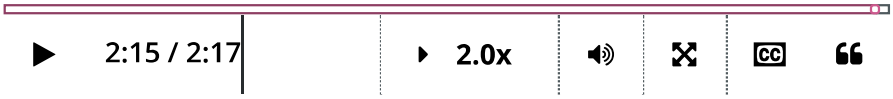
ETHAN ADDICOTT: The Malthusian growth model,

dP dt equals rP, the change in population over time

equals some constant r times the population size,

describes populations that grow exponentially indefinitely.

We can see that this is



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