

THE MECHANICAL UNIVERSE

Video 3 - Derivatives

Name: _____

Class: _____

1. What discovery first connected mathematics to the physical world?
2. What is meant by the “language of mathematics?”
3. In this video, whose father was an accomplished musician?
4. What branch of science did Galileo invent?
5. What advanced language of science was invented soon after Galileo’s death?
6. What is a derivative?
7. What French mathematician found a way to find the tangent to a curve?
8. How is the derivative related to slope?
9. What is the derivative of a constant equal to?
10. What is the product rule?
11. What does taking the second derivative of displacement yield?
12. Give an example of a function that has no derivative (describe):