Search Task Questions (Answer Key)

**Proving Trigonometry Formulas from Euler’s Formula (Lee Stemkoski)**

**1. Find the point in the lecture where it introduces the property that ‘if , then , and ’ is introduced.**

Answer: 5:01, “Now, interesting thing, when two complex numbers are equal, their real in their imaginary parts must also be equal.”

**2. Find the point in the lecture where the double angle formula for is introduced.**

Answer: 6:12, “If you let a=x and b=x, then you’ll get cos(2x) …”

**3. Find the point in the lecture where the property that ‘ is an even function’ is used.**

Answer: 1:00, “Furthermore, since is an even function…”

**4. Find the point in the lecture where the instructor strikes out part of an equation, where terms add up to eliminate each other. (Visual)**

Answer: 2:23, “Now, there is some great cancellation which happens,”

Search Task Questions (Answer Key)

**Fundamental Theorem of Calculus (Khan Academy)**

**1. Find the point in the lecture where it introduces an application problem to use the fundamental theorem of calculus.**

Answer: 5:38, “Well, let’s say someone told you that they want to find the derivative…”

**2. Find the point in the lecture where it introduces a point *x* inside the domain [*a*,*b*] of function *f*.**

Answer: 1:10, “Let me pick this right over here, x.”

**3. Find the point in the lecture where the condition for a function to have an antiderivative is stated.**

Answer: 4:09, “Every continuous function, every continuous f …”

**4. Find the point in the lecture where the instructor fills in (colors) a region under the curve of graph . (Visual)**

Answer: 1:13, “So let’s define some new function to capture…”

Search Task Questions (Answer Key)

**Uniform Distribution (Actuarial Path)**

**1. Find the point in the lecture where the equation for the Moment Generating Function of X, is introduced.**

Answer: 3:39, “Finally, the MGF, the moment”

**2. Find the point in the lecture where the for x > b is stated for the first time without derivation.**

Answer: 2:55, “It’s 1 if x>b.”

**3. Find the point in the lecture where for a<x<b is expressed as an integral.**

Answer: 5:17, “When x is between a and b, then the CDF”

**4. Find the point in the lecture where the height of the graph of f(x) is denoted with a variable on the graph for the first time. (Visual)**

Answer: 1:34, “We can calculate the length of that height that we need …”