### Round 1

**Differentiate this:** You are to differentiate the expression.

Correct questions will be of the form "What is the antiderivative of f'(x)?"

**Men in Mathematics** 

**Mathematical Objects** 

**Fundamental Theorems** 

Enumeration

#### **Differentiate This**

\$100 2x

 $$200 \cos(x)$ 

 $\$300 \frac{1}{x}$ 

 $$400 \ 2^x \ln(2)$ 

 $100 x^{x} (\ln(x) + 1)$ 

#### **Men in Mathematics**

\$100 Isaac Newton

\$200 Evariste Galois

\$300 Carl Friedrich Gauss

\$400 Leonhard Euler

\$500 Cedric Villani

# **Mathematical Objects**

\$100 Sphere

\$200 Graph

\$300 Cauchy Sequence

\$400 Analytic function

\$500 Algebraic Variety

#### **Fundamental Theorems**

\$100 Fundamental Theorem of Calculus

\$200 Fundamental Theorem of Arithmetic

\$300 Fundamental Theorem of Algebra

\$400 Fundamental Theorem of Finite Abelian Groups

\$500 Fundamental Theorem of Galois Theory

### **Enumeration**

\$100 12

\$200 20

\$300 64

\$400 10

\$500 5

### Round 2

**Integrate that:** You are to integrate the given expression.

Correct questions will be of the form "What is the derivative of F(x)?"

**Women in Mathematics** 

Who proved it?

**Integer Sequences** 

**Proper Name Adjectives** 

# **Integrate That**

$$100 \frac{x^3}{3}$$

 $$200 \sin(x)$ 

\$300 arcsin(x)

 $400 \ln(\sec(x))$ 

 $500 x \ln(x) - x$ 

#### **Women in Mathematics**

\$100 Maryam Mirzakhani

\$200 Sophie Germain

\$300 Ada Lovelace

\$400 Emmy Noether

\$500 Julia Robinson ne Bowman

## Who proved it?

\$100 Euclid

\$200 Andrew Wiles

\$300 Leonhard Euler

\$400 Paul Cohen

\$500 Johann Bernoulli

## **Integer Sequences**

\$100 Squares)

\$200 Fibonacci sequence

\$300 Triangular numbers

\$400 Perfect Numbers

\$500 Catalan numbers

## **Proper Name Adjectives**

\$100 Abelian

\$200 Eulerian

\$300 Hamiltonian

\$400 Euclidean

\$500 Noetherian

Final Jeopardy Category: Ramanujan

1729