

# ADVANCED MATH MATCHINGMANIA

## TABLE OF CONTENTS

### Suggestions

#### 1. Asymptotes MatchingMania

Instructions

Worksheet

Functions

Vertical Asymptotes

Horizontal Asymptotes

The graph of the functions

#### 2. Finding Asymptotes MatchingMania

Instructions

Worksheet

Functions

Vertical Asymptotes and Horizontal Asymptotes

The graph of the functions

#### 3. Matrices MatchingMania

Instructions

Worksheet

Matrices

The sum of the Matrices

The difference of the Matrices

The product of the Matrices

#### 4. Factoring Difference and Sum of Cubes MatchingMania

Instructions

Worksheet

Cubic problems to be factored

Factored form of each cubic expression

#### 5. Quadratic Equations MatchingMania

Instructions

Worksheet

Quadratic Equations

Set up using the Quadratic Equation

Solution to each quadratic equation

## 6. Rational Exponents MatchingMania

Instruction  
Worksheet  
Rational exponents  
Exponents written using radicals  
Simplified form of the rational exponents

## 7. Rational Exponents2 MatchingMania

Instruction  
Worksheet  
Rational exponents  
Simplified form of rational exponents

## 8. Right Triangle Trigonometry MatchingMania

Instructions  
Worksheet  
Right Triangles  
The sine ratio  
The cosine ratio  
The tangent ratio

## 9. Right Triangle Trigonometry2 MatchingMania

Instructions  
Worksheet  
Triangles and polygons  
Trig ratio needed to find the missing measure  
The solution to the missing side measure

## 10. Function ID MatchingMania

Instructions  
Worksheet  
The Graphs of the functions  
The name of the function  
The general form of the function

## 11. Natural Log and $e^x$ Integral and Derivative MatchingMania

Instructions  
Worksheet  
The function  $f(x)$   
The integral of the function -  $F(x)$   
The derivative of the function -  $f'(x)$

## 12 Trig Integral and Derivative MatchingMania

Instructions  
Worksheet

The function  $f(x)$   
The integral of the function -  $F(x)$   
The derivative of the function -  $f'(x)$   
The 2nd derivative of the function -  $f''(x)$

### **13 Tangent Lines**

Instructions  
Worksheet  
The function  $f(x)$   
The derivative of the function -  $f'(x)$   
The slope of the function given  $x = 1$   
The point on  $f(x)$  given  $x = 1$

### **14 Graphing Calculator**

Instructions  
Worksheet  
The function  
X-intercepts  
Minimum points  
Maximum points  
Points of intersection