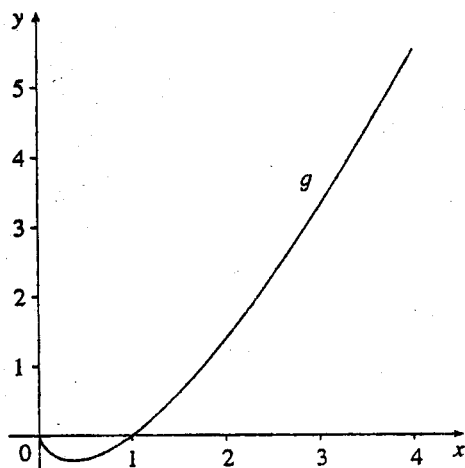


Group Work 1, Section 2.8
Tangent Lines and the Derivative Function

The following is a graph of $g(x) = x \ln x$.



It is a fact that the derivative of this function is $g'(x) = \ln x + 1$.

1. Sketch the line tangent to $g(x)$ at $x = e \approx 2.718$ on the graph above.

Find an equation of the tangent line at $x = e$.

3. Now sketch the line tangent to $g(x)$ at $x = \frac{1}{e} \approx 0.368$.

4. Find an equation of the tangent line at $x = \frac{1}{e}$.

Group Work 4, Section 2.8
Sorting Them Out (Version A)

Each figure below shows the graphs of a function, its first derivative, and its second derivative. Identify which is which.

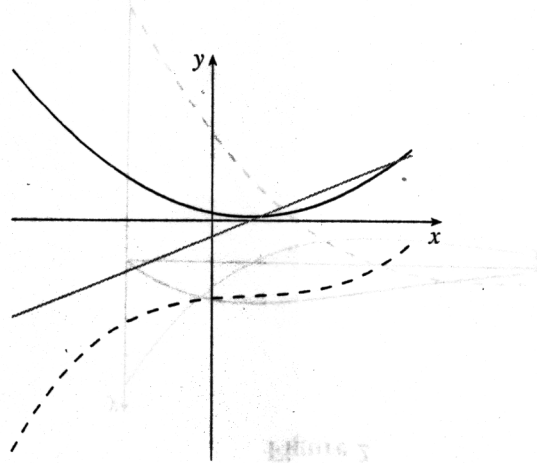


Figure 1

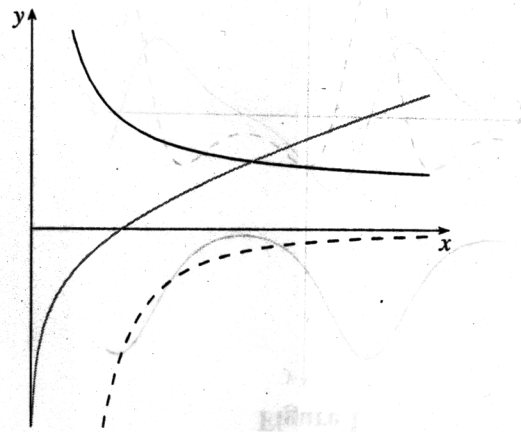


Figure 2

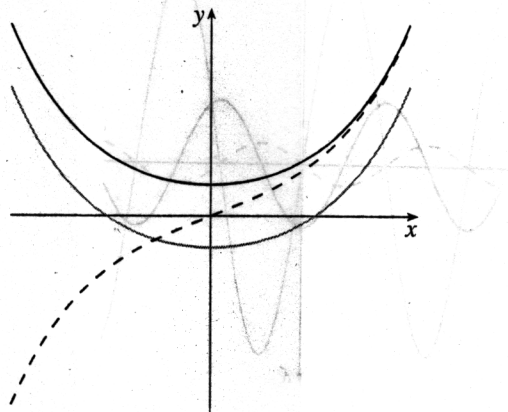


Figure 3

is which

Each figure below shows the graphs of a function, its first derivative, and its second derivative. Identify which

Sorting Them Out (Version A)

Group Work 4, Section 2.8

Group Work 4, Section 2.8

Sorting Them Out (Version B)

Each figure below shows the graphs of a function, its first derivative, and its second derivative. Identify which is which.

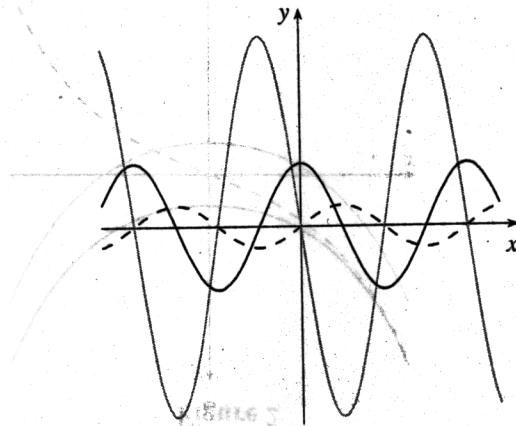


Figure 1

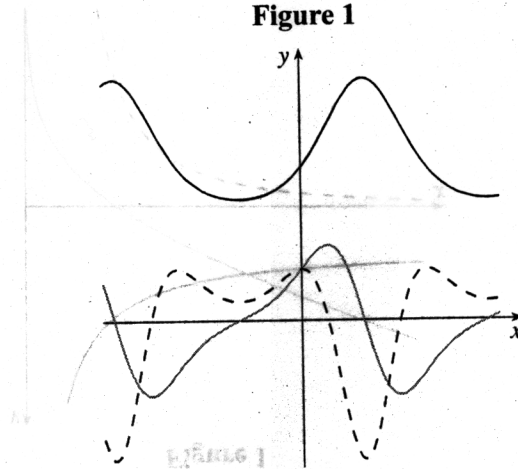


Figure 2

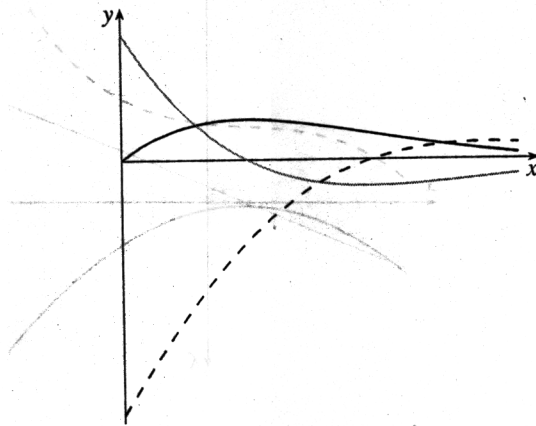


Figure 3

Sorting Them Out (Version B)

Group Work 4, Section 2.8