

Quiz Three

Hui Santosh

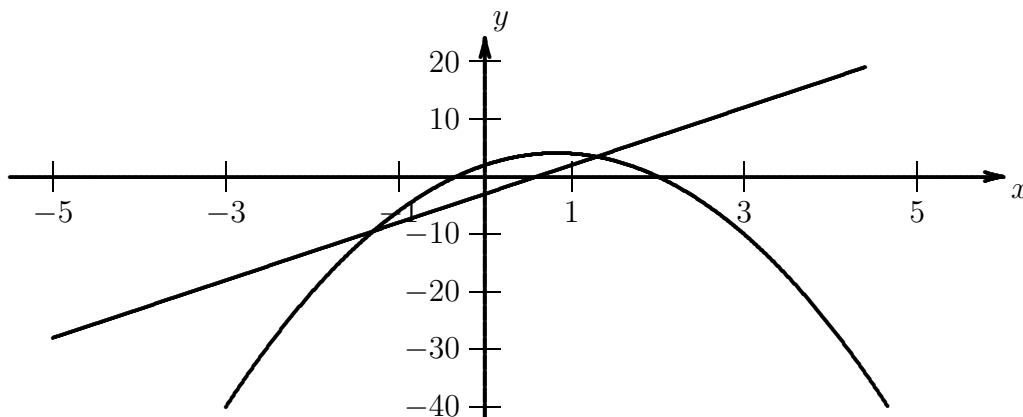
Section 10:30 BA BC

(circle one) 11:30 BB BD

No notes. No calculators.

Simplify your answers. Show your work. Please put a box around YOUR FINAL ANSWER. There are 15 points on this quiz.

For this page, consider the functions $y = f(x) = 2 + 5x - 3x^2$ and $y = g(x) = 5x - 3$, graphed below.



1 (3 points) Find all values of x for which $f(x) - g(x) = 2$.

2 (3 points) Find an inverse function $y = f^{-1}(x)$, and specify the domain and range for your function.

For the problems on this page, consider the function

$$h(x) = \frac{2x - 3}{x + 2}.$$

3 (4 points) Find the zeros and all asymptotes of $h(x)$.

4 (5 points) Graph the function $y = h(x)$ on the axes, below. Be sure to number the axes and show (and label) all zeros and asymptotes.

