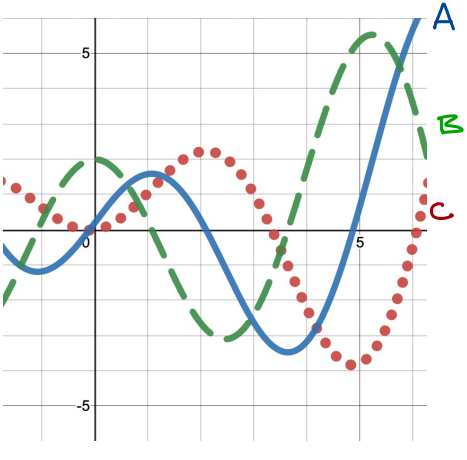
1. The graphs of f, f', and f'' are shown below. Which is which? Why?



2. Let $f(x) = \dfrac{2x^2 + x - 6}{x^2 - 3x - 10}$

   (a) Are there any x-values where $f(x)$ undefined? If so, what are they?

   (b) What is the behavior of f on each side of the values where it is undefined? That is, if f is undefined at $x = c$, find $\lim_{x \to c^-} f(x)$ and $\lim_{x \to c^+} f(x)$

   (c) Does f have any vertical asymptotes? If so, where?

   (d) Does f have any horizontal asymptotes? If so, where?