Graphing derivatives practice with answers pdf

You are given an 'f(x)' chart, and your task is to display what 'f'(x) looks like.' Browse to graph 'f(x)' displayed in black. Drag the blue dots up and down so that together they follow the shape of the 'f'(x)' chart. When you think you have a good representation of 'f'(x)', click the Show results button! under the applet. This reveals the actual graph of 'f'(x)', drawn in red. You can keep moving points and see how accuracy changes. Click Reset chart to get a new problem! Back to On-Line Topic Text Home Index for This Topic Everything for Calculus Everything for Math Limited Everything for Limited Math & Calculus Utility: Function Evaluator &amp; Grapher Español In each of the following, a function graph $f(x)$ is given. Select the correct chart from $f'(x).$ Note: Clicking the chart provides feedback only for odd-numbered exercises. 1. Chart $y = f(x):$2. Graph $y = f(x):$3. Graph $y = f(x):$4. The $y = f(x):$5. Graphic $y = f(x):$6. Graph $y = f(x):$ In the following exercise, a graph of the $f(x)$ is shown. Give a rough sketch of the derivative effect $f'(x).$7.Answer 8. 9.Answer 10. Last Updated:November, 1997 Copyright © 1996 StefanWaner and Steven R. Costenoble Show General Notice of Mobile Notification Events All Records Hide All Records General Notice I have just been told that Lamar University needs to do emergency work on the internet here. Therefore there is a high probability that the site will not be achievable on Saturday, 24 October from 08:00 - 22:00 Central Standard Time. I'm sorry for the inconvenience. PaulOctober 23, 2020 Your Mobile Notice appears to be on a device with a narrow screen width (i.e. you may be using a mobile phone). Due to the nature of the mathematics on this site, it is the best view in landscape mode. If your device isn't in landscape mode, many equations will run from the side of your device (it should be able to scroll to see it) and some menu items will be disconnected due to the narrow width of the screen. For issues 1 &amp; 2 function charts are given. Specify the interval at which the function increases and decreases. Solution Solutions Below is a derivative graph of a function. From this graph determines the interval at which the function increases and decreases. Worka workaolving This problem is about multiple functions. All we know about its function is that it is everywhere and we also know the information given below about the function derivative. Answer any of the following questions about this function. Identify the critical points of the function. Specify the interval at which the function increases and decreases. Classify important points as relative maximums, relative minimums or not. \[\begin{array}{c}f'\left({ - 5} \right) = 0\,\,\,\,\,\,\,,f'\left({ - 2} \right) = 0\,\,\,\,\,\,\,\,\,\,\,,f'\left(4 \right) = 8 \right) = 0\\ f'\left(x \right) < < { - 5, - 2} \right),\,\,\left({ - 2,4} \right),\,\,\,\left({8,\infty } \right)\hspace{0.25in}\hspace{0.25in}f'\left(x \right) > 0\,\,\,\,\,{\rm{on}}\,\,\,\\left({ - \infty , - 5} \right),\,\,\,\left({4,8} \right)\end{array}\] Solution To problems 5 – 12 answer any of the following. Identify the critical points of the function. Specify the interval at which the function increases and decreases. Classify important points as relative maximums, relative minimums or not. \(f\left(x \right) = 2{x^3} - 9{x^2} - 60x\) Solution \(h\left(t \right) = 50 + 40{t^3} - 5{t^5^5^5^54} - 4{t^5}\) Solution \(y = 2{x^3} - 10{x^2} + 12x - 12\) Solution \(p\left (x \right) = \cos \left ({3x} \right) + 2x\) on \(\displaystyle \left[- \frac{3}{2},\,\,2 \right]\) Solution \(\displaystyle R\left(z \right) = 2 - 5z - 14\sin \left({\frac{z}{2}} \right)\) on \(\left[{ - 10,7} \right]\) Solution \(h\left(t \ right) = {t^2}\ ,\sqrt[3]{{t - 7}}\) Solution \(f\left(w \right) = w{{\bf{e}}^{2\, - \,\,{\frac{1}{2}}{w^{\,2}}}}\) Solution \(g\left(x \right) = x - 2\ln \left({1 + {x^2}} \right)\) Solution For some functions, \(f\left(x \right)\), it is known that there is a maximum relative at \(x= 4\). Answer any of the following questions about this function. What is the simplest form for derivatives of this function? Note: There are really many possible derivative shapes so to make the rest of this problem as simple as possible you will want to use the simplest form of derivatives you can create. Using your answer from (a) determines the most common form of function. Given that \(f\left(4 \right) = 1\) finds a function that will have a relative maximum at \(x=4\). Note: You should be able to use your answer from (b) to determine the answer for this section. Solution Given that \(f\left(x \right)\) and \(g\left(x \right)\) improve functionality. If we define \(h\left(x \right) = f\left(x \right) + g\left(x \right)\) indicates that \(h\left(x \right)\) is an improved function. Solution Given that \(f\left(x \right)\) is an improved function and defines \(h\left(x \right) = {\left[{f\left(x \right)} \right]^2}\). Will \(h\left(x \right)\) be an increased function? If so, prove that \(h\left(x \right)\) is an improved function. Otherwise, can you specify other conditions required in the \(f\left(x \right)\) function that will guarantee that \(h\left(x \right)\) will also increase? The following solution is a quiz to test your ability to use differentiation concepts to infer information about function charts. Each problem consists of four parts. You click the box next to the statement that you believe is always true. After you select an answer for four sections, then click the Check Answers button. You will then be told which answer is correct or not. An explanation was given for the wrong answer. There are a total of 15 You will be given a score at the end of the 15th issue. 15th. here to start the quiz. This page was originally written by Marek Szapiel. Szapiel.