Homework 29 (Chap. 14.3), 95.00/120.00 (79.17%)

April 29, 2020
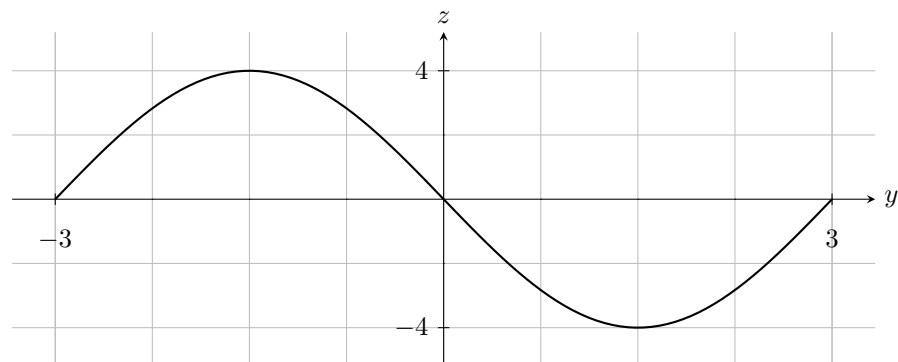
Problem 8 score: 10/10

good

Problem 9 score: 0/10[1]

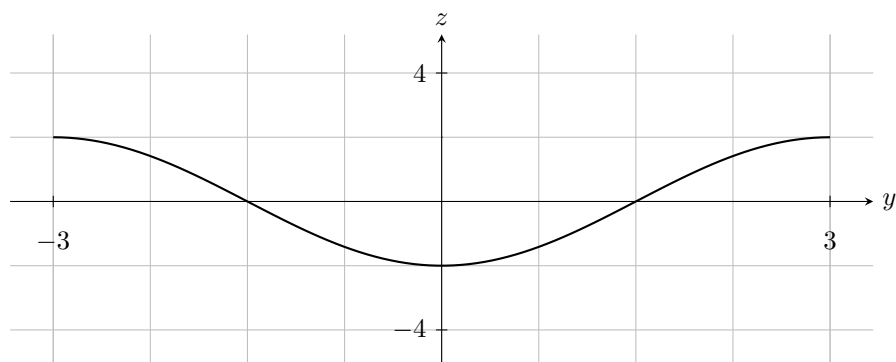In the problem (a), (b) and (c) are given. What are (1), (2) and (3)?

Also, I disagree with your answer. Suppose (b) is f and consider its section at $x = -2$. The function looks like.

Hence, the section $x = -2$ of f_y should look like

---

[1]similar problems: 11,12

However, it is clearly not so.

Problem 20 score: 10/10

good

Problem 30 score: 10/10

good

Problem 39 score: 10/10

good

Problem 41 score: 10/10

good

Problem 45 score: 10/10

good

Problem 50 score: $5/10^2$

$\partial z/\partial x$ is good, but in $\partial z/\partial y$

$$\frac{z + \frac{x}{y}}{2z - y} \neq \frac{yz - x}{2yz - y^2} \left(= \frac{yz + x}{2yz - y^2} \right).$$

Problem 60 score: 10/10

good

---

[2]similar problems: 51,52

Problem 67 score: 10/10

good

Problem 80 score: 10/10

good

Problem 99 score: $0/10^{3}$

First of all, the section will have an equation $4x^2 + z^2 = 8$. Imagine it plotted in xz plane (with x being horizontal axis and z vertical). Then, point $(x, z) = (1, 2)$ is in first quadrant, hence tangent line should have an equation $x/a + z/b = 1$ with $a, b > 0$. But you equation is clearly not so.

---

[3]similar problems: 100,101