

Calculus ex14

10, Jul, 2019

☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0
☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1
☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2
☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3
☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4
☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5
☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6
☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7
☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8
☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name:

Questions with a ♣ may have zero, one or more right answers.

Question 1 Evaluate $\frac{\partial z}{\partial x}$ of $z = -4y^3 - 7xy^2 - 2x^2y + 3x^3$.

- ☐ $-7y^2 - 2y + 6x^2$ ☒ $-7y^2 - 2y + 3x^2$ ☐ $-7y^2 - 2y$ ☐ $9x^2 - 9y$
☐ $-7y^2 - 4xy + 9x^2$

Question 2

Evaluate $\frac{\partial z}{\partial y}$ of $z = -4y^3 - 7xy^2 - 2x^2y + 3x^3$.

- ☐ $-14xy - 8y - 2x^2$ ☒ $-12y^2 - 14xy - 2x^2$ ☐ $-4y^2 + 14xy - 4y - 2x^2$
☐ $-7xy^2 - 4y^2 - 4y - 2x^2$ ☐ $-4y^2 - 14xy - 4y - 2x$

Question 3

Evaluate f_x of $z = e^{6y-4x}$.

- ☒ $-4e^{6y-4x}$ ☐ $-3e^{6y-3x}$ ☐ e^{6y-4x} ☐ $\frac{3e^{6y-3x}}{4}$ ☐ $-4e^{5y-4x}$

Question 4

Evaluate f_y of $z = e^{6y-4x}$.

- ☐ $6e^{6y-3x}$ ☒ $6e^{6y-4x}$ ☐ $5e^{5y-4x}$ ☐ e^{6y-3x} ☐ e^{6y-4x}

Question 5

Evaluate z_x of $z = \frac{3x-9y}{3y+2x}$.

- ☐ $-\frac{9y}{(3y+2x)^2}$ ☒ $\frac{27y}{(3y+2x)^2}$ ☐ $\frac{27y}{3y+2x}$ ☐ $-\frac{9x}{3y+2x}$ ☐ $\frac{27x}{(3y+2x)^2}$

Question 6

Evaluate z_y of $z = \frac{3x-9y}{3y+2x}$.

- ☐ $-\frac{9x}{(3y+2x)^2}$ ☐ $-\frac{27y}{3y+2x}$ ☐ $\frac{27x}{(3y+2x)^2}$ ☒ $-\frac{27x}{(3y+2x)^2}$ ☐ $\frac{27x}{3y+2x}$