

<u>Help</u>

sandipan_dey >

<u>Course</u> <u>Progress</u> <u>Dates</u> <u>Calendar</u> <u>Discussion</u> <u>Notes</u>

Course / Unit 1: Functions of two variables / Problem Set 1A



Next >

You are taking "Exam (Timed, No Correctness Feedback)" as a timed exam. Show more

End My Exam

Previous

44:29:53





☐ Bookmark this page

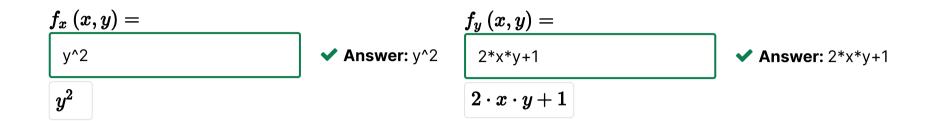
Problem Set A due Aug 4, 2021 20:30 IST Completed

1A-2(A)

2/2 points (graded)

Compute the indicated partial derivatives.

$$f\left(x,y\right) =xy^{2}+y$$



? INPUT HELP

Solution:

We have

$$f_x\left(x,y\right)=y^2$$

and

$$f_{y}\left(x,y
ight) =2xy+1.$$

Submit

You have used 1 of 5 attempts

• Answers are displayed within the problem

1A-2(B)

2/2 points (graded)

Compute the indicated partial derivatives.

$$g\left(x,y
ight) =rac{x}{x+y}$$

$$g_x(x,y) =$$

$$y/(x+y)^2$$

Answer: $y/(x+y)^2$

Answer: $-x/(x+y)^2$

$$-\frac{x}{(x+y)^2}$$

? INPUT HELP

Solution:

From the quotient rule, we have

$$g_{x}\left(x,y
ight) =rac{\left(1
ight) \left(x+y
ight) -x\left(1
ight) }{\left(x+y
ight) ^{2}}=rac{y}{\left(x+y
ight) ^{2}}.$$

From the chain rule, we have

$$g_y\left(x,y
ight)=rac{\partial}{\partial y}x(x+y)^{-1}=-x(x+y)^{-2}=-rac{x}{\left(x+y
ight)^2}.$$

Submit

You have used 3 of 5 attempts

1 Answers are displayed within the problem

1A-2(C)

2/2 points (graded)

Compute the indicated partial derivatives.

$$h\left(p,q\right) =\sin \left(pq^{2}\right)$$

? INPUT HELP

Submit

You have used 1 of 5 attempts

2. Partial derivatives

Hide Discussion

Topic: Unit 1: Functions of two variables / 2. Partial derivatives

Add a Post

Show all posts by recent activity

Deadline Extension

Hello, I was assuming that I had the deadline until August 4th 23:59... and I am not able to attempt the question further. I was wonde...

Previous

Next >

© All Rights Reserved



edX

About

Affiliates

edX for Business

Open edX

Careers

News

Legal

Terms of Service & Honor Code

Privacy Policy

Accessibility Policy

Trademark Policy

<u>Sitemap</u>

Connect

Blog

Contact Us

Help Center

Media Kit

Donate















© 2021 edX Inc. All rights reserved.

深圳市恒宇博科技有限公司 <u>粤ICP备17044299号-2</u>

4/4