Unit 2 Quiz (2.1-2.8) - KU

Please complete Unit 2 Quiz (2.1-2.8) - KU. You can complete it many times but must be finished before the end of today's class. Good luck!

Unit 2 Quiz (2.1-2.8) KU, A, PS and C all need to be completed in today's class!!!
If there are issues send a message to your teacher during the school day. End of school day we will not be able to respond.

1   1 point

$\frac{d(xy^2)}{dx}$

- ◯ 2xy
- ◯ 2y
- ◯ $x(2y) + y^2$
- ◯ $x(2y)\frac{dy}{dx} + y^2$

2   1 point

Order the proof for the chain rule

	⫶ $f'(u(x)) = \frac{dy}{du}\frac{du}{dx}$

	⫶ let y = f(x) = f(u(x))

	⫶ $\frac{dy}{dx} = f'(u(x)) = \lim_{h\to 0} \frac{f(u(x+h)) - f(u(x))}{h}$

	⫶ $f'(u(x)) = \lim_{h\to 0} \frac{f(u(x+h)) - f(u(x))}{u(x+h) - u(x)} \lim_{h\to 0} \frac{u(x+h) - u(x)}{h}$

	⫶ $f'(u(x)) = \lim_{h\to 0} \frac{f(u(x+h)) - f(u(x))}{u(x+h) - u(x)} \frac{u(x+h) - (u(x)}{h}$

3   1 point

Find the tangent to the curve at $x^2 + y^2 = 25$ at point (3,-4)

Answers in decimal form

y = [_____] x + [_____]

---

4   1 point
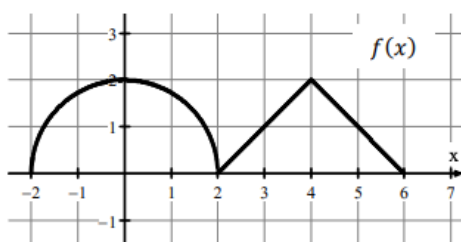
What is f'(4)

- ○ 0
- ○ $\dfrac{1}{\sqrt{3}}$
- ○ 1
- ○ -1
- ○ DNE

---

5   1 point

$$f(x) = \frac{3x+4}{2x}$$

The tangent at x = 1 is y = ax + b

Find a and b

a = [_____]

b = [_____]