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Name: \_\_\_\_\_

QUIZ 10 ♣

MATH 200  
February 17, 2026

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**Directions:** Differentiate the functions. You **do not** need to simplify your answer.

1.  $y = \sin(7x + \pi)$

2.  $z = \sqrt[3]{w^3 + 8}$

3.  $y = \sec^2(x)$

4.  $y = \sec(x^2)$

5.  $D_x \left[ x e^{\tan(3x)+1} \right] =$

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QUIZ 10 ◇

MATH 200  
February 17, 2026

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**Directions:** Differentiate the functions. You **do not** need to simplify your answer.

1.  $y = \sqrt{5x + 1}$

2.  $y = \cos(x^2)$

3.  $y = \cos^2(x^2)$

4.  $z = \tan\left(\frac{e^w}{w + 1}\right)$

5.  $y = e^{\tan(3x)+x} + x^2$

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QUIZ 10 ♠

MATH 200  
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**Directions:** Differentiate the functions. You **do not** need to simplify your answer.

1.  $z = \sqrt{4w^2 + 16}$

2.  $y = e^{x^2 - x}$

3.  $y = \sin(e^{x^2 - x})$

4.  $y = (4x^5 \cos(x) + 1)^{10}$

5.  $D_x \left[ \frac{e^{\tan(x)}}{x} \right] =$