

Math 2413
Summer 2020

Name _____

Assignment: Derivatives
Due: Wednesday 6/17/20 at 10:00 pm.

Find $f'(x)$. Simplify and box in your answer.

1. $f(x) = \frac{2x+3}{7x-1}$

2. $f(x) = 3x^5 e^x$

3. $f(x) = 3x^5 - 2x^4 + x^2 + 5x - 2$

4. $f(x) = 4x^3 \tan(3x-1)$

5. $f(x) = \frac{3x}{x^2+5}$

6. $f(x) = \sqrt[5]{x^3}$

7. $f(x) = -2\sin^3(4x+1)$

8. $f(x) = 3(x^2-3)^5$

9. Given: $g(2)=3$; $g'(2)=-4$; $h(2)=1$; $h'(2)=2$

Find $f'(2)$ when $f(x) = \frac{g(x)}{h(x)}$. Show work for credit.