

Math 101 (091)
Quiz 3 v1 (3.10–4.7)

Name: _____ ID #: _____ Section #: _____ Serial #: _____

1. If $f''(x) = (x-1)^2 x^3$ then the number of inflection points of f is

2. The number of critical numbers for $f(x) = \frac{e^x}{\sqrt{x+1}}$ is

3. $\lim_{x \rightarrow \infty} (x - \ln x) =$

4. Using the linear approximation of $f(x) = x + e^x$ at $a = 0$, $f(0.1) \approx$

5. If $f(t) = \sinh(\ln t)$, then $f'(1) =$

Math 101 (091)
Quiz 3 v2 (3.10–4.7)

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6. If $f''(x) = (x-1)^2 x^3$ then the number of inflection points of f is

7. The function $f(x) = \frac{2x^3 \sin x}{x(x^2 - \pi)}$ has the slant asymptote

8. Using the differentials, $\sqrt{4.1} \approx$

9. $\lim_{x \rightarrow \infty} (\sqrt{x^2 + x} - x) =$

10. If $\sinh c = a$, then $\tanh c =$
