

Honors Math 182 Quiz 4

Work the indefinite integrals:

$$\textcircled{5} \int \frac{1}{(x-5)(x+3)} dx$$

$$\textcircled{6} \int \frac{x^4 - 1}{x - 1} dx$$

Work the definite integrals:

$$\textcircled{7} \int_0^1 x e^{-2x^2} dx$$

$$\textcircled{8} \int_1^6 \left| x - \frac{3}{x} \right| dx$$

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Work the indefinite integrals:

$$\textcircled{1} \int \frac{1}{4+x^2} dx$$

$$\textcircled{2} \int \ln(x^2+x-12) dx$$

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Work the limit:

$$\textcircled{3} \lim_{x \rightarrow 4} \frac{1}{x^2-16}$$

Work the derivative

$$\textcircled{4} \frac{d}{dx} \sinh(\arctan x)$$