

6.13 Improper Integrals

Calculus

Name: _____

CA #1

Evaluate each integral.

1. $\int_0^4 \frac{1}{\sqrt{4-x}} dx$

2. $\int_2^{\infty} x^{-3} dx$

3. $\int_{-\infty}^0 e^{3x} dx$

4. $\int_0^3 \frac{1}{\sqrt{9-x^2}} dx$

5. $\int_0^4 \frac{1}{x^{4/3}} dx$

6. $\int_{-\infty}^{\infty} 2xe^{-x^2} dx$

Answers to 6.13 CA #1

1. 4	2. $\frac{1}{8}$	3. $\frac{1}{3}$	4. $\frac{\pi}{2}$	5. Diverges	6. 0
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