

Calculus BC

Section 8.1 – Basic Integration Rules

1.

a) $\int \frac{5dx}{\sqrt{4-x^2}}$

b) $\int \frac{5xdx}{\sqrt{4-x^2}}$

u =

c) $\int \frac{5x^2 dx}{\sqrt{4-x^2}}$

u =

2. a) $\int \frac{2dx}{25x^2 + 9}$

b) $\int \frac{2xdx}{25x^2 + 9}$

u =

c) $\int \frac{2x^2 dx}{x^2 + 9}$

improper fraction:

degree of numerator \geq degree of denominator

3. Separating A Fraction

$$\text{a) } \int \frac{x+2}{4x^2+1} dx$$

$$\text{b) } \int \frac{2x+3}{\sqrt{4-x^2}} dx$$

