

Calculus I

Indefinite integral of rational monomial, part 1

Todor Milev

2019

Example

Integrate.

$$\begin{aligned}
 \int 5x^{\frac{3}{2}} dx &= 5 \frac{x^{\frac{3}{2}+1}}{\frac{3}{2}+1} + C \\
 &= \cancel{5} \frac{x^{\frac{5}{2}}}{\cancel{\frac{5}{2}}} + C \\
 &= 2x^{\frac{5}{2}} + C
 \end{aligned}$$