

SATPREP

Assignment: *Integration (Power rule)*

Evaluate each indefinite integral.

1) $\int \left(10x - \frac{3}{x^2} \right) dx$

2) $\int (16x^3 + 10x) dx$

3) $\int \left(30x^5 + 20x^4 - \frac{1}{x^2} \right) dx$

4) $\int (10x - 3) dx$

Evaluate each definite integral.

5) $\int_1^5 (2x^2 - 12x + 17) dx$

6) $\int_{-3}^0 (-2x^2 - 4x + 4) dx$

7) $\int_1^4 (2x^2 - 12x + 17) dx$

8) $\int_5^6 \left(-\frac{x^2}{2} + 3x + \frac{3}{2} \right) dx$

Answers to Assignment: Integration (Power rule)

1) $5x^2 + \frac{3}{x} + C$

2) $4x^4 + 5x^2 + C$

3) $5x^6 + 4x^5 + \frac{1}{x} + C$

4) $5x^2 - 3x + C$

5) $\frac{20}{3} \approx 6.667$

6) 12

7) 3

8) $\frac{17}{6} \approx 2.833$

