

CALCULUS I - Worksheet #13

1. $\int_2^4 \frac{15x - 3}{5x} dx$

2. $\int_0^1 x^6 (4x^2 + x - 5) dx$

3. If $f'(x) = y$ and if $y = 3$ when $x = 2$, then $y =$

4. If $f'(x) = 5x^4 - 2x$ and if $f(1) = 6$, then $f(2) = ?$

5. $\int \cos^2(7x) dx =$

6. $\int \frac{7}{e^{5x}} dx$

7. $\int 9^x dx =$

8. $\int \cos^3(7x) dx =$

9. $\lim_{x \rightarrow 4} \frac{x^2 - 4}{x^2 - 16}$

10. Simplify $e^{2 \ln x^3}$

11. $\lim_{x \rightarrow 6} \frac{x - 6}{x^2 - 36}$

12. $\int \cos^5 x \sin x dx =$