

## Calculus II, Exam 2 Review

Please keep in mind that this is a general review of topics to study. It is not meant to be all-inclusive.

**- Chapter 8 -**

1. Integrate:  $\int \frac{x+8}{x^2+25} dx$

2. Integrate:

$$\int \frac{4 - 32x}{\sqrt{9 - 16x^2}} dx$$

3. Integrate:  $\int \frac{1}{x^2+2x+26} dx$

4. Integrate:  $\int 6\theta \sec^2 \theta d\theta$

5. Integrate:  $\int 18x^2 \ln x dx$

6. Integrate:  $\int 16x \csc^{-1} x dx \quad x \geq 1$

7. Integrate:  $\int 8te^t dt$

8. Integrate:  $\int t^3 e^{4t} dt$

9. Integrate:  $\int \frac{4x^2+x+4}{(x-1)(x^2+x+1)} dx$

10. Integrate:  $\int \frac{x^2}{(100-x^2)^{3/2}} dx$

11. Integrate:  $\int \frac{dx}{(1+36x^2)^{3/2}}$

12. Integrate:  $\int \frac{9}{x(x+3)} dx$

13. Integrate:  $\int \frac{10x^2}{x^4-1} dx$

14. Integrate:  $\int e^{-6\theta} \sin 6\theta d\theta$

15. Integrate:  $\int 4\sin^3 x \cos^2 x dx$

16. Integrate:  $\int 16\sin^2 x \cos^2 x dx$

17. Integrate:  $\int 7\sec^3 x \tan x dx$

18. Integrate:  $\int_2^{\infty} \frac{13}{x \ln x} dx$