Math 142 Quiz 4

Names: _____

Do as many of these as possible! (Use another paper for scratch work, write answers here.)

1. $\int_1^e \ln(x^2)\, dx =$

2. $\int \cos^4 x\, dx =$

3. $\int \frac{1}{x \ln x}\, dx =$

4. $\int \frac{1}{x^3 + x}\, dx =$

5. $\int x^3 e^{3x}\, dx =$

6. $\int \frac{x^2}{\sqrt{1 - x^2}}\, dx =$

7. $\int \frac{e^x}{1 + e^x}\, dx =$

8. $\int \frac{1}{2 + x^2}\, dx =$

9. $\int \sqrt{1 + e^x}\, dx =$

10. $\int (2^x + \ln_2 x)\, dx =$

11. $\int \frac{3}{(x - 3)(x - 2)}\, dx =$

12. $\int x e^{-x^2}\, dx =$

13. $\int x^3 e^{-x^2}\, dx =$

14. $\int e^{-x^2}\, dx =$

15. $\int \arctan x / (\sqrt{1 + x^2})^3\, dx =$