Practice for Derivatives on e's, a's and logs

_____1. $f(x) = x^2e^x$

_____2 $f(x) = \ln x^3$

_____3 $y = e^{3x^4+6}$

_____4. $y = 3^{\cos x}$

_____5. $y = \ln (x^2 + 9x + 4)$

_____6. $y = \log_4(x^3 + 2x)$

_____7. $y = e^{3x^2+6}$

_____8. $f(x) = \log_3 (x + x^2)$

_____9. $y = 5^{x^3}$

_____10. $y = x^{x+1}$

_____11. $y = \dfrac{2^{\sec t}}{t^2}$

_____12. $y = x^{\csc 3x}$

_____13. $y = \log_7 \tan 2x$

Integrate the following

_____14. $\int 3x4^{x^2}\,dx$

_____15. $\int \frac{e^{3x}+4e^{x}+2}{e^{x}}dx$

_____16. $\int e^{3x}dx$

_____17. $\int 7^{-3x}dx$

_____18. $\int e^{ctn3x}\csc^{2}3xdx$

_____19. $\int \frac{4^{x}}{1+4^{x}}dx$

_____20. $\int \frac{x+2}{x-1}dx$

_____21. $\int \frac{1}{c^{2x}}dx$

_____22. $\int_{1}^{2} \frac{e^{2/x}}{x^{2}}dx$