Evaluate using integration by parts

1) $\int \ln(x+1)\,dx$

2) $\int xe^{-x}\,dx$

3) $\int x\ln(x+1)\,dx$

4) $\int \dfrac{x}{\sqrt{1-x^2}}\,dx$

5) $\int \dfrac{1}{x(\ln x)^3}\,dx$

6) $\int\limits_0^1 (x\ln x)^2\,dx$