

Fill in the blank entries of the following table. As before, A and n are constants. You'll have to simplify some of these to get them to fit in the space provided.

| Antiderivative | Function | Derivative |
|----------------|------------------------------|------------|
| | $\sin(x)$ | |
| | $\cos(x)$ | |
| | $\tan(x)$ | |
| | e^{Ax} | |
| | $3x^2 \cos(x) - x^3 \sin(x)$ | |
| | $(x + 4)e^x$ | |
| | $x^3 \sqrt{x}$ | |
| | $(1 + x^2)^{-1}$ | |
| | $x(1 + x^2)^{-1}$ | |
| | $(1 - x^2)^{-1/2}$ | |
| | $x(1 - x^2)^{-1/2}$ | |
| | x^n | |
| | $H'(g(x))g'(x)$ | |