Integrals — Functions: sin, cos, e^x, 1/x

Name: _____ Date: _____

Find each integral. Use the integral of each function, and divide by what the inside multiplies x by.

1. $\int (\sin x - 5e^x - \frac{1}{x})\, dx$

   $= -\cos x - 5e^x - \ln|x| + C$

2. $\int (5 \cos x - 4 \sin x)\, dx$

3. $\int (-5 \cos x - 4e^x - \frac{5}{x})\, dx$

4. $\int (\cos x - 4 \sin x)\, dx$

5. $\int (-5 \sin x - e^x)\, dx$

6. $\int (5 \cos x - \sin x - \frac{2}{x})\, dx$

Integrals · Functions: sin, cos, e^x, 1/x — Answer key

1. $\int (\sin x - 5e^x - 1/x)\,dx = -\cos x - 5e^x - \ln|x| + C$

2. $\int (5\cos x - 4\sin x)\,dx = 5\sin x + 4\cos x + C$

3. $\int (-5\cos x - 4e^x - 5/x)\,dx = -5\sin x - 4e^x - 5\ln|x| + C$

4. $\int (\cos x - 4\sin x)\,dx = \sin x + 4\cos x + C$

5. $\int (-5\sin x - e^x)\,dx = 5\cos x - e^x + C$

6. $\int (5\cos x - \sin x - 2/x)\,dx = 5\sin x + \cos x - 2\ln|x| + C$