SATPREP Name_____

Assignment: Integration (Basic)

Date_____

Evaluate each indefinite integral.

1) $\int -\frac{4\sin x}{\cos^2 x}\,dx$

2) $\int -\frac{4}{\sec x}\,dx$

3) $\int \frac{1}{\csc x}\,dx$

4) $\int \frac{4\cos x}{\sin x}\,dx$

5) $\int \frac{1}{1+x^2}\,dx$

6) $\int \frac{1}{4+x^2}\,dx$

7) $\int \frac{1}{\sqrt{25-x^2}}\,dx$

8) $\int \frac{1}{\sqrt{1-x^2}}\,dx$

9) $\int 5x^{-1}\,dx$

10) $\int e^x\,dx$

11) $\int -\frac{5\sin x}{\cos x}\,dx$

12) $\int \frac{4}{\sin x}\,dx$

13) $\int \frac{5\sin x}{\cos x}\,dx$

14) $\int -\frac{4}{\cos x}\,dx$

Answers to Assignment: Integration (Basic)

1) $-4\sec x + C$

2) $-4\sin x + C$

3) $-\cos x + C$

4) $4\ln\left|\sin x\right| + C$

5) $\tan^{-1} x + C$

6) $\frac{1}{2} \cdot \tan^{-1} \frac{x}{2} + C$

7) $\sin^{-1} \frac{x}{5} + C$

8) $\sin^{-1} x + C$

9) $5\ln\left|x\right| + C$

10) $e^x + C$

11) $-5\ln\left|\sec x\right| + C$

12) $4\ln\left|\csc x - \cot x\right| + C$

13) $5\ln\left|\sec x\right| + C$

14) $-4\ln\left|\sec x + \tan x\right| + C$