Name_____

Integration

Evaluate each indefinite integral.

1) $\int \dfrac{1}{\sqrt{16-x^2}}\,dx$

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

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

4) $\int \dfrac{1}{16+x^2}\,dx$

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

6) $\int \dfrac{1}{\sqrt{25-x^2}}\,dx$

7) $\int \dfrac{1}{x\sqrt{x^2-81}}\,dx$

8) $\int \dfrac{1}{4+x^2}\,dx$

Name_____

Integration

Date_____ Period____

Evaluate each indefinite integral.

1) $\displaystyle\int \frac{1}{\sqrt{16-x^2}}\,dx$

$\sin^{-1}\dfrac{x}{4}+C$

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

$\dfrac{1}{2}\cdot\tan^{-1}\dfrac{x}{2}+C$

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

$\sec^{-1}\left|x\right|+C$

4) $\displaystyle\int \frac{1}{16+x^2}\,dx$

$\dfrac{1}{4}\cdot\tan^{-1}\dfrac{x}{4}+C$

5) $\displaystyle\int \frac{1}{x\sqrt{x^2-4}}\,dx$

$\dfrac{1}{2}\cdot\sec^{-1}\dfrac{\left|x\right|}{2}+C$

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

$\sin^{-1}\dfrac{x}{5}+C$

7) $\displaystyle\int \frac{1}{x\sqrt{x^2-81}}\,dx$

$\dfrac{1}{9}\cdot\sec^{-1}\dfrac{\left|x\right|}{9}+C$

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

$\dfrac{1}{2}\cdot\tan^{-1}\dfrac{x}{2}+C$