

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Inverse Trigonometry Rules

Find each indefinite integral using inverse trigonometric functions.

1)  $\int \left( \frac{3}{14\sqrt{1 - (\frac{2}{7}x)^2}} \right) dx$

2)  $\int \left( \frac{-14}{9\sqrt{1 - (2x)^2}} \right) dx$

3)  $\int \left( \frac{35}{27(1 + (\frac{7}{3}x)^2)} \right) dx$

4)  $\int \left( \frac{-9}{8(1 + (\frac{9}{4}x)^2)} \right) dx$

5)  $\int \left( \frac{-21}{25\sqrt{1 - (\frac{7}{5}x)^2}} \right) dx$

6)  $\int \left( \frac{-12}{5\sqrt{1 - (\frac{9}{10}x)^2}} \right) dx$

7)  $\int \left( \frac{63}{8\sqrt{1 - (\frac{9}{8}x)^2}} \right) dx$

8)  $\int \left( \frac{-8}{45(1 + (\frac{8}{5}x)^2)} \right) dx$

9)  $\int \left( \frac{10}{(1 + (3x)^2)} \right) dx$

10)  $\int \left( \frac{72}{7(1 + (\frac{8}{7}x)^2)} \right) dx$



Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Inverse Trigonometry Rules

Find each indefinite integral using inverse trigonometric functions.

1)  $\int \left( \frac{3}{14\sqrt{1 - (\frac{2}{7}x)^2}} \right) dx$

$$\frac{3}{4} \sin^{-1}\left(\frac{2}{7}x\right) + C$$

2)  $\int \left( \frac{-14}{9\sqrt{1 - (2x)^2}} \right) dx$

$$\frac{7}{9} \cos^{-1}(2x) + C$$

3)  $\int \left( \frac{35}{27(1 + (\frac{7}{3}x)^2)} \right) dx$

$$\frac{5}{9} \tan^{-1}\left(\frac{7}{3}x\right) + C$$

4)  $\int \left( \frac{-9}{8(1 + (\frac{9}{4}x)^2)} \right) dx$

$$\frac{1}{2} \cot^{-1}\left(\frac{9}{4}x\right) + C$$

5)  $\int \left( \frac{-21}{25\sqrt{1 - (\frac{7}{5}x)^2}} \right) dx$

$$\frac{3}{5} \cos^{-1}\left(\frac{7}{5}x\right) + C$$

6)  $\int \left( \frac{-12}{5\sqrt{1 - (\frac{9}{10}x)^2}} \right) dx$

$$\frac{8}{3} \cos^{-1}\left(\frac{9}{10}x\right) + C$$

7)  $\int \left( \frac{63}{8\sqrt{1 - (\frac{9}{8}x)^2}} \right) dx$

$$7 \sin^{-1}\left(\frac{9}{8}x\right) + C$$

8)  $\int \left( \frac{-8}{45(1 + (\frac{8}{5}x)^2)} \right) dx$

$$\frac{1}{9} \cot^{-1}\left(\frac{8}{5}x\right) + C$$

9)  $\int \left( \frac{10}{(1 + (3x)^2)} \right) dx$

$$\frac{10}{3} \tan^{-1}(3x) + C$$

10)  $\int \left( \frac{72}{7(1 + (\frac{8}{7}x)^2)} \right) dx$

$$9 \tan^{-1}\left(\frac{8}{7}x\right) + C$$

