Name : _____ Score : _____

Teacher : _____ Date : _____

Inverse Trigonometry Rules

Find each indefinite integral using inverse trigonometric functions.

1) $\int \left(\frac{7}{40\sqrt{1 - (\frac{7}{4}x)^2}}\right)dx$

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

3) $\int \left(\frac{-3}{2(1 + (\frac{5}{4}x)^2)}\right)dx$

4) $\int \left(\frac{-2}{15\sqrt{1 - (\frac{1}{5}x)^2}}\right)dx$

5) $\int \left(\frac{5}{8\sqrt{1 - (\frac{7}{8}x)^2}}\right)dx$

6) $\int \left(\frac{30}{49(1 + (\frac{10}{7}x)^2)}\right)dx$

7) $\int \left(\frac{21}{\sqrt{1 - (6x)^2}}\right)dx$

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

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

10) $\int \left(\frac{9}{8(1 + (\frac{3}{4}x)^2)}\right)dx$

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Inverse Trigonometry Rules

Find each indefinite integral using inverse trigonometric functions.

1) $\int \left(\frac{7}{40\sqrt{1 - (\frac{7}{4}x)^2}}\right)dx$

$\frac{1}{10}\sin^{-1}(\frac{7}{4}x) + C$

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

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

3) $\int \left(\frac{-3}{2(1 + (\frac{5}{4}x)^2)}\right)dx$

$\frac{6}{5}\cot^{-1}(\frac{5}{4}x) + C$

4) $\int \left(\frac{-2}{15\sqrt{1 - (\frac{1}{5}x)^2}}\right)dx$

$\frac{2}{3}\cos^{-1}(\frac{1}{5}x) + C$

5) $\int \left(\frac{5}{8\sqrt{1 - (\frac{7}{8}x)^2}}\right)dx$

$\frac{5}{7}\sin^{-1}(\frac{7}{8}x) + C$

6) $\int \left(\frac{30}{49(1 + (\frac{10}{7}x)^2)}\right)dx$

$\frac{3}{7}\tan^{-1}(\frac{10}{7}x) + C$

7) $\int \left(\frac{21}{\sqrt{1 - (6x)^2}}\right)dx$

$\frac{7}{2}\sin^{-1}(6x) + C$

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

$\frac{7}{5}\cos^{-1}(\frac{5}{2}x) + C$

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

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

10) $\int \left(\frac{9}{8(1 + (\frac{3}{4}x)^2)}\right)dx$

$\frac{3}{2}\tan^{-1}(\frac{3}{4}x) + C$