Calculus ex05 8, May, 2019

$$\bigcirc 0 \bigcirc 0$$

$$\bigcirc 1 \ \bigcirc 1$$

$$\bigcirc 2 \bigcirc 2$$

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$$\bigcirc 4 \bigcirc 4$$

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$$\bigcirc 6 \bigcirc 6$$

$$\bigcirc 8 \bigcirc 8$$

$$\bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9$$

 \leftarrow Please encode your student number, and write your first and last names below.

First name and last name:

Questions with a 🌲 may have zero, one or more right answers.

Question 1 \clubsuit Evaluate primitive value of $\arcsin\left(-\frac{1}{\sqrt{2}}\right)$.

$$\begin{array}{c} -\frac{\pi}{3} \\ -\frac{5\pi}{6} \end{array}$$

$$\bigcirc -\frac{7\pi}{6}$$

$$\bigcirc -\pi$$

$$\bigcirc -\frac{2\pi}{3}$$

$$\bigcirc \quad -\frac{3\,\pi}{4}$$



Question 2 \clubsuit Evaluate primitive value of $\arccos\left(\frac{\sqrt{3}}{2}\right)$.

$$-\frac{\pi}{2}$$

$$\bigcirc 0 \\ -\frac{5\pi}{6}$$

$$\begin{array}{c} \bigcirc & -\frac{\pi}{3} \\ \bigcirc & -\frac{\pi}{4} \end{array}$$

$$\bigcap_{n \to \infty} -\frac{2\pi}{3}$$



$$\bigcirc \quad -\frac{\pi}{6}$$

Question 3 \clubsuit Evaluate primitive value of $\arctan(1)$.

$$\frac{\pi}{3}$$

$$\begin{array}{ccc}
& \frac{3}{4} \\
& \frac{\pi}{4}
\end{array}$$

$$\bigcap_{\pi} \frac{7}{6}$$

\bigcirc	$\frac{\pi}{3}$	$\bigcirc \frac{3\pi}{4}$	$\frac{7\pi}{6}$	\bigcirc $\frac{5\pi}{4}$		$\frac{2\pi}{3}$	0	$\frac{\pi}{2}$
		$\frac{\pi}{4}$	\bigcap π	O None of the	hese ans	swers are	corr	ect.

$$\bigcirc \quad \frac{2\,\pi}{3}$$





Question 4 4

Find the derivative f'(x) of $f(x) = \arcsin\left(\frac{x}{2}\right)$.

$$\bigcap \frac{\arccos\left(\frac{x}{2}\right)}{2}$$



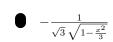


Question 5 ♣ Find the derivative f'(x) of $f(x) = \arccos\left(\frac{x}{\sqrt{3}}\right)$.

$$\bigcirc -\frac{\arcsin\left(\frac{x}{\sqrt{3}}\right)}{\sqrt{3}} \qquad \bigcirc -\frac{1}{\sqrt{1-\frac{x^2}{3}}} \qquad \blacksquare -\frac{1}{\sqrt{3}\sqrt{1-\frac{x^2}{3}}} \qquad \bigcirc -\arcsin\left(\frac{x}{\sqrt{3}}\right)$$

$$\blacksquare -\frac{1}{\sqrt{3-x^2}} \qquad \bigcirc None \ of \ these \ answers \ are \ correct.$$

$$\bigcirc \quad -\frac{1}{\sqrt{1-\frac{x^2}{3}}}$$



$$\bigcirc -\arcsin\left(\frac{x}{\sqrt{3}}\right)$$

Question 6 4

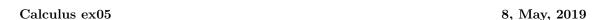
Find the derivative f'(x) of $f(x) = \arctan\left(\frac{x}{7}\right)$.

$$\bigcirc \quad \frac{1}{\frac{x^2}{49}+1} \qquad \bigcirc \quad \frac{1}{7\cos^2\left(\frac{x}{7}\right)} \qquad \qquad \blacksquare \quad \frac{1}{7\left(\frac{x^2}{49}+1\right)} \qquad \qquad \blacksquare \quad \frac{7}{x^2+49} \qquad \bigcirc \quad \frac{1}{\cos^2\left(\frac{x}{7}\right)}$$

$$\frac{1}{7\left(\frac{x^2}{49}+1\right)}$$



None of these answers are correct.



$$\bigcirc 0 \bigcirc 0$$

$$\bigcirc 1$$
 $\bigcirc 1$ $\bigcirc 1$ $\bigcirc 1$ $\bigcirc 1$ $\bigcirc 1$ $\bigcirc 1$

$$\bigcirc 2 \bigcirc 2$$

$$\bigcirc 3 \bigcirc 3 \bigcirc 3 \bigcirc 3 \bigcirc 3 \bigcirc 3 \bigcirc 3$$

$$\bigcirc 4 \bigcirc 4$$

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$$\bigcirc 6 \bigcirc 6$$

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$$\bigcirc 8 \bigcirc 8 \bigcirc 8 \bigcirc 8 \bigcirc 8 \bigcirc 8 \bigcirc 8$$

$$\bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9 \bigcirc 9$$

write your first and last names below.

 \leftarrow Please encode your student number, and

First name and last name:

Questions with a 🌲 may have zero, one or more right answers.

Question 1 \clubsuit Evaluate primitive value of $\arcsin\left(\frac{1}{2}\right)$.

$$\bigcirc \quad \frac{3\pi}{4} \qquad \bigcirc \quad \frac{\pi}{2} \qquad \bigcirc \quad \frac{5\pi}{6} \qquad \bigcirc \quad \frac{7\pi}{6} \qquad \bigcirc \quad \frac{2\pi}{3} \qquad \blacksquare \quad \frac{\pi}{6}$$

$$\bigcirc \quad \frac{\pi}{4} \qquad \bigcirc \quad None \ of \ these \ answers \ are \ correct.$$

$$\bigcirc \frac{5\pi}{6}$$

$$\bigcirc \frac{\pi}{4}$$

$$\bigcap_{\mathbf{N}} \frac{7\pi}{6}$$

$$\bigcirc \frac{2\pi}{3}$$



Question 2 & Evaluate primitive value of $\arccos(0)$.

$$\bigcirc \ \ \, \frac{4\,\pi}{3} \qquad \bigcirc \ \, \frac{7\,\pi}{6} \qquad \bigcirc \ \, \frac{5\,\pi}{4} \qquad \bigcirc \ \, \frac{2\,\pi}{3} \qquad \blacksquare \ \, \frac{\pi}{2} \qquad \bigcirc \ \, \pi \\ \ \, \bigcirc \ \, \frac{3\,\pi}{2} \qquad \bigcirc \ \, \frac{3\,\pi}{4} \qquad \bigcirc \ \, None \ of \ these \ answers \ are \ correct.$$

$$\bigcirc \frac{5}{4}$$

$$\bigcap \frac{2\pi}{3}$$

$$\bigcap None I$$

$$\bigcap$$
 π

Question 3 \clubsuit Evaluate primitive value of $\arctan\left(-\frac{1}{\sqrt{3}}\right)$.

$$\begin{array}{ccc} & -\frac{\pi}{2} \\ & -\frac{3\pi}{4} \end{array}$$

$$\begin{array}{ccc} & -\pi \\ & -\frac{2\pi}{3} \end{array}$$

$$\bigcap_{N \in \mathbb{N}} -\frac{\pi}{3}$$

$$\bigcirc \quad -\frac{5\,\pi}{6}$$

Question 4 4

Find the derivative f'(x) of $f(x) = \arcsin\left(\frac{x}{\sqrt{5}}\right)$.

$$\int \frac{1}{\sqrt{1-\frac{x^2}{5}}}$$

$$\bigcirc$$
 $\arccos\left(\frac{x}{\sqrt{5}}\right)$



None of these answers are correct.

Question 5 ♣

Find the derivative f'(x) of $f(x) = \arccos\left(\frac{x}{\sqrt{7}}\right)$.

$$-\arcsin\left(\frac{x}{\sqrt{7}}\right)$$



Question 6 4 Find the derivative f'(x) of $f(x) = \arctan\left(\frac{x}{3}\right)$.

$$\bigcirc \quad \frac{1}{3\cos^2\left(\frac{x}{3}\right)} \qquad \bigcirc \quad \frac{1}{\cos^2\left(\frac{x}{3}\right)} \qquad \bigcirc \quad \frac{1}{\frac{x^2}{9}+1} \qquad \qquad \blacksquare \quad \frac{3}{x^2+9} \qquad \qquad \blacksquare \quad \frac{1}{3\left(\frac{x^2}{9}+1\right)}$$

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

None of these answers are correct.