

Composition Function Calisthenics

Compose an $f(x)$ and a $g(x)$ in the first and second column to make one of the expressions in the third column.



$f(x)$	$g(x)$	$f(g(x))$
$x - 3$	$x^{0.6}$	X
$2x - 3$	x^2	x^2
\sqrt{x}	$\frac{(x-2)(x+2)}{2}$	$ x $
x^5	$\ln(e^3 x)$	x^3
$ 2x + 4 $	$\frac{x}{2}$	$\ln x$
$1 - 2x^2$	$\frac{x+3}{2}$	$\sin x$
$2 \sin x \cos x$	$\sin\left(\frac{x}{2}\right)$	$\cos x$