

LO3.1: Clumsy Clara's Composition Confusion

Clara knows that she's made mistakes somewhere in her math homework.
Can you spot and correct the mistakes, and give her some tips so that she (hopefully) doesn't make them again?

$$f(x) = x^2 - 6 \text{ and } g(x) = 2x + 1$$

Find an expression for $(f \circ g)(x)$

Clara's answer:	Your answer:
Put $f(x)$ into $g(x)$: $(f \circ g)(x) = 2(x^2 - 6) + 1$ Expand and simplify Answer: $(f \circ g)(x) = 2x^2 - 11$	
What mistake has Clara made?	

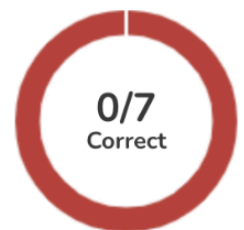
LO3.1: Blooket Blunders

These are some of the common Blooket questions that confused students, with the answers. Can you figure out how to get to the answers?

Question 1

Given $f(x) = x^2$ and $g(x) = x + 3$, find $f(g(x))$

Answer: $x^2 + 6x + 9$



Question 2

Given $f(x)=-4x^2+5$, $g(x)=7x+1$, find $g(g(x))$

Answer: $49x+8$



Question 3

Given $f(x)=x^2+5$ and $g(x)=x - 7$, find $g(g(x))$

Answer: $x - 14$



Question 4

Given $f(x)=-4x^2+5$, $g(x)=7x+1$, find $g(f(x))$

Answer: $-28x^2+36$

