


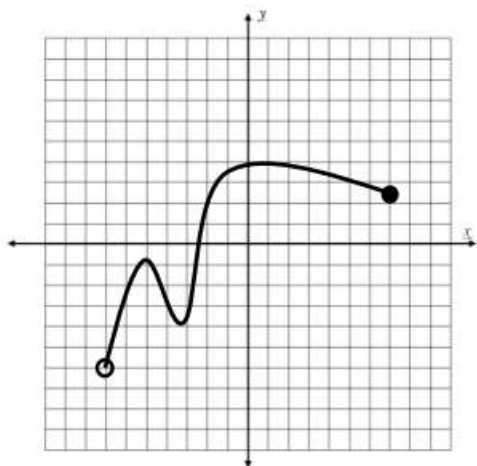


Directions: *This is a study tool for the next regents review quiz.*

<p>1. If $f(x) = 2x + 7$ and $g(x) = 3x^2 - 1$, what expression would represent $f(g(x))$?</p> <p> Answer: <input data-bbox="203 661 570 793" type="text"/></p>	<p>Justify your answer.</p>
<p>2. Find the values of m and b for the following equation to be an identity $6(2x - 5) - (mx + 2) = 9x + b$</p> <p> Answer: <input data-bbox="203 1050 573 1186" type="text"/></p>	<p>Justify your answer.</p>
<p>3. The average rate of change of the function $f(x)$ on the interval $[-1, 4]$ for is -3. If $f(-1) = -7$, what is the value of $f(4)$?</p> <p> Answer: <input data-bbox="170 1753 800 1885" type="text"/></p>	<p>Justify your answer!</p>

4. The graph below represents the function $f(x)$. State the domain and range of $f(x)$.



Answer:

Justify your answer!

5. Solve for x in terms of a .

$$\left(\frac{1}{27}\right)^{4x+a} = 3^{7x}$$



Answer:

Explain your answer.

Answers: 1) $6x^2 + 5$ 2) $m = 3, b = -32$ 3) $f(4) = -22$ 4) $D: (-7, 7]$ $R: (-6, 4]$
 5) $x = -\frac{3}{19}a$