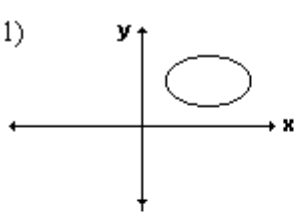
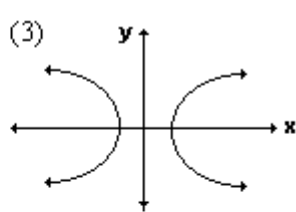
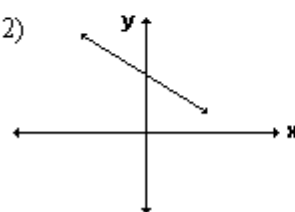
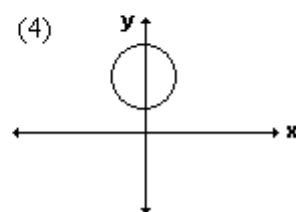


Directions: Choose the best answer. Answer ALL questions. Show ALL work in column 2. If there is no mathematical work to be shown, write an explanation or definition to support your answer! This counts as a quiz grade!!! **☀️YOU MUST WRITE YOUR FINAL ANSWER IN THE BOX!! ☀️**

<p>1. If $f(x) = x - 3$ and $g(x) = x^2$, evaluate $f(g(-3))$.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>☀️ Answer:</p> </div>	<p>Justify your answer!</p>
<p>2. Which graph of a relation is also a function?</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>(1)</p>  </div> <div style="text-align: center;"> <p>(3)</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>(2)</p>  </div> <div style="text-align: center;"> <p>(4)</p>  </div> </div>	<p>Explain your choice.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p>☀️ Answer:</p> </div>
<p>3. Find the equation of the inverse of $f(x) = \frac{3}{2}x - 1$.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>☀️ Answer:</p> </div>	<p>Justify your answer!</p>

4. Solve the equation for x:

$$5 - 3(x - 6) = 2(x - 6)$$



Answer:

Justify your answer!

5. Give the domain and range of this function:

$$f(x) = x^2 - 2x - 15$$



Answer:

Define domain and range and **explain** how you found them.

Answers: 1) $f(g(-3)) = 6$

2) 2

3) $f^{-1}(x) = \frac{2}{3}x + \frac{2}{3}$

4) $x = 7$

5) D : all real numbers R : $y \geq -16$