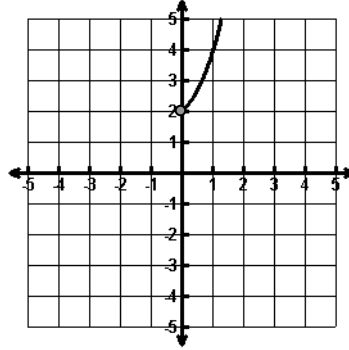


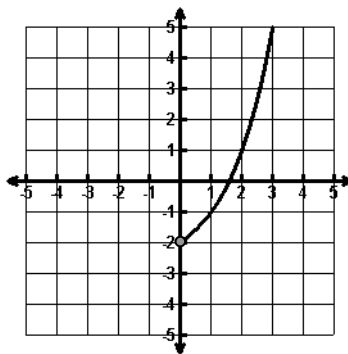
1. The graph below shows the function $y = 3^x + 1$, with a restricted domain.



Which of the following correctly shows the domain and range of the inverse of this function?

A	Domain $\{x/x \geq 2\}$ Range $\{y/y \geq 0\}$	Correct. The domain of the inverse function will be all possible y - values of the given function and the range will be all possible x -values of the given function.
B	Domain $\{x/x \geq 0\}$ Range $\{y/y \geq -2\}$	Incorrect. The domain of the inverse function will be the range of the given function.
C	Domain $\{x/x \geq 0\}$ Range $\{y/y \geq 2\}$	Incorrect. This is the domain of the given function <u>not</u> the inverse function.
D	Domain $\{x/x \leq 0\}$ Range $\{y/y \geq 2\}$	Incorrect. The domain of the inverse function will be the range of the given function.

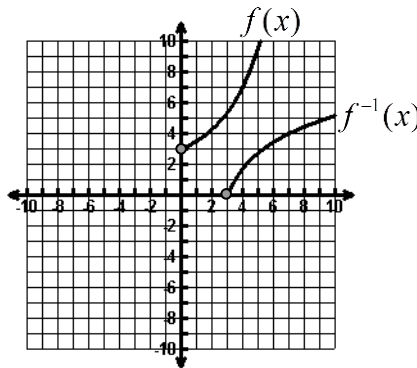
2. An exponential function with a restricted domain is shown on the graph below.



Which of the following correctly shows the domain and range of the inverse of the function?

A	Domain $\{x/x \geq 2\}$ Range $\{y/y \geq 0\}$	Incorrect. The domain contains <i>all</i> possible <i>x</i> -values.
B	Domain $\{x/x \geq -2\}$ Range $\{y/y \geq 0\}$	Correct. The domain of the inverse function will be the range of the given function and the range of the inverse function will be the domain of the given function.
C	Domain $\{x/x \geq 0\}$ Range $\{y/y \geq -2\}$	Incorrect. This is the domain and range of the original function.
D	Domain $\{x/x \leq -2\}$ Range $\{y/y \leq 0\}$	Incorrect. The domain contains numbers greater than -2 and the range contains numbers greater than zero..

3. The graph of an exponential function with a restricted domain, $f(x)$, is shown below. The graph of the inverse of the function, $f^{-1}(x)$, is also shown.



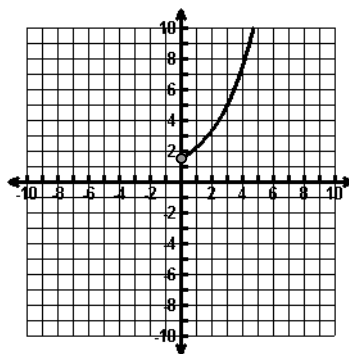
Which of the following is a true statement about the function and its inverse?

A	The domain of $f(x)$ contains the same values as the range of $f^{-1}(x)$.	Correct. The domain of $f(x)$ will be the range of $f^{-1}(x)$.
B	The range of $f(x)$ contains the same values as the range of $f^{-1}(x)$.	Incorrect. The range of $f(x)$ contains all positive numbers greater than 3.

C	The domain of $f(x)$ contains the opposite values as the range of $f^{-1}(x)$.	Incorrect. The domain of $f(x)$ contains all positive values.
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D	The range of $f(x)$ cannot be determined.	Incorrect. The range of $f(x)$ contains all positive numbers greater than 3.
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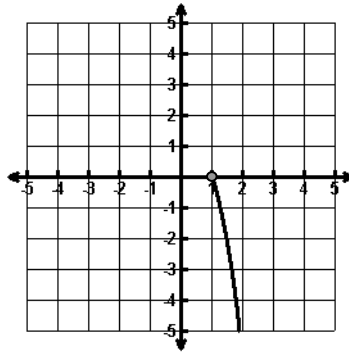
4. The graph of a function is shown below.



Which of the following represents the range of the inverse of the function?

A	$\{y/y < 1.5\}$	Incorrect. The range only contains positive values.
B	$\{y/y < 0\}$	Incorrect. The range contains positive values.
C	$\{y/y > 1.5\}$	Incorrect. This is the range of the original function.
D	$\{y/y > 0\}$	Correct. The domain of the given function will be the range of the inverse function.

5. The graph of a function is shown below.



Which of the following represents the range of the inverse of the function?

A	$\{y/y > 1\}$	Correct. The range of the inverse of the function is the domain of the given function.
B	$\{y/y < 1\}$	Incorrect. The range contains positive values.
C	$\{y/y < 0\}$	Incorrect. This is the range of the original function.
D	$\{y/y > 0\}$	Incorrect. The range does not contain numbers between 0 and 1.