A2.A.44: Inverse of Functions 1: Define the inverse of a function

1 If the point (a,b) lies on the graph $y = f(x)$, the graph of $y = f^{-1}(x)$ must contain point
1) (b,a)
2) $(a,0)$
3) $(0,b)$
4) $(-a,-b)$

2 The image of function $f(x)$ is found by mapping each point on the function (x,y) to the point (y,x). This image is a reflection of $f(x)$ in
1) the x-axis
2) the y-axis
3) the line whose equation is $y = x$
4) the line whose equation is $y = -x$

3 The inverse function of $\{(2,6),(-3,4),(7,-5)\}$ is
1) $\{(-2,6),(3,4),(-7,-5)\}$
2) $\{(2,-6),(-3,-4),(7,5)\}$
3) $\{(6,2),(4,-3),(-5,7)\}$
4) $\{(-6,-2),(-4,3),(5,-7)\}$

4 Write the inverse of the given function: $\{(5,3),(-2,4),(7,-2)\}$

5 Given the relation A: $\{(3,2),(5,3),(6,2),(7,4)\}$
Which statement is true?
1) Both A and A^{-1} are functions.
2) Neither A nor A^{-1} is a function.
3) Only A is a function.
4) Only A^{-1} is a function.

6 Given: set A: $\{(1,2),(2,3),(3,4),(4,5)\}$
If the inverse of the set is A^{-1}, which statement is true?
1) A and A^{-1} are functions.
2) A nor A^{-1} are not function.
3) A is a function and A^{-1} is not a function.
4) A is not a function and A^{-1} is a function.

7 If $m = \{(-1,1),(1,1),(-2,4),(2,4),(-3,9),(3,9)\}$, which statement is true?
1) m and its inverse are both functions.
2) m is a function and its inverse is not a function.
3) m is not a function and its inverse is a function.
4) Neither m nor its inverse is a function.

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Answer Section

1 ANS: 1 REF: 080216b
2 ANS: 3 REF: 011010b
3 ANS: 3 REF: 019024siii
4 ANS:
$\{(3,5),(4,-2),(-2,7)\}$

REF: 069009siii
5 ANS: 3 REF: 010914b
6 ANS: 1 REF: 069424siii
7 ANS: 2 REF: 081523a2