

1 $f(2) = 4$ (A) $f^{-1}(5) = f^{-1}(f(3)) = f(3) = 5$
 $f(3) = 5$ (B) $f(f^{-1}(4)) = f(2) = 4$
 $f^{-1}(4) = 2$
 $= f(2) = 4$

(C) $f^{-1}(f(-3)) = f^{-1}(5) = -3$

2. $y = -3x - 2$

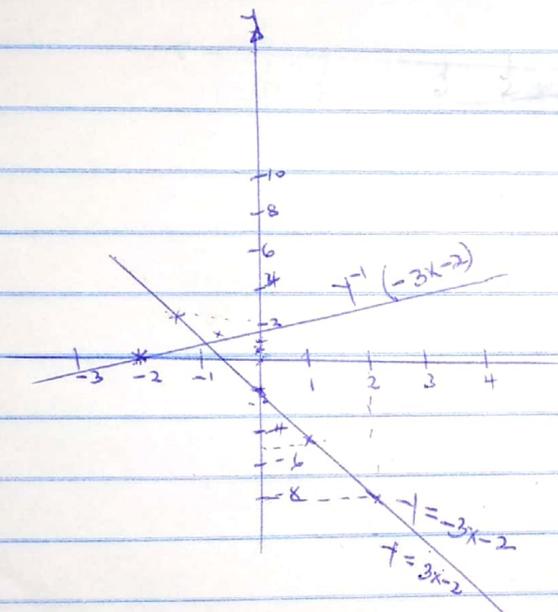
x	0	1	2	3
y	-2	-5	-8	-11

$y = -3x - 2$

$-(y+2) = x$

$\frac{-y-2}{3} = x$

x	0	-1	-4/3
y	-2	1	2



③ It does not have inverse because its inverse not through the centre of inversion would be another circle.

4. $y = -4x + 2$

$y - 2 = -4x$

$-\frac{(y-2)}{4} = x$

⑤ $y = -2\sqrt{x+3}$

$\left(\frac{-y}{-2}\right)^2 = (\sqrt{x+3})^2$

$\frac{y^2}{4} = x + 3$

$x = \frac{y^2}{4} - 3$

$x = \frac{y^2}{4} - 3$

6. It does not have an inverse because to get the inverse of a linear function, reflection occurs along line $y=x$. A mirror line does not reflect itself

7. $y = \sqrt{-x+1}$

x	0	-1	-3	-8
y	1	$\sqrt{2}$	2	3

