7. Use transformations and the zeroes of the quadratic function $y=(x-1)(x+2)$ to determine the zeroes of each of the following functions.

(1,0) (-2,0

(4)

i. $y=f(-x)$

(2,0) (-1,0)

ii. $y=3f(2x)$

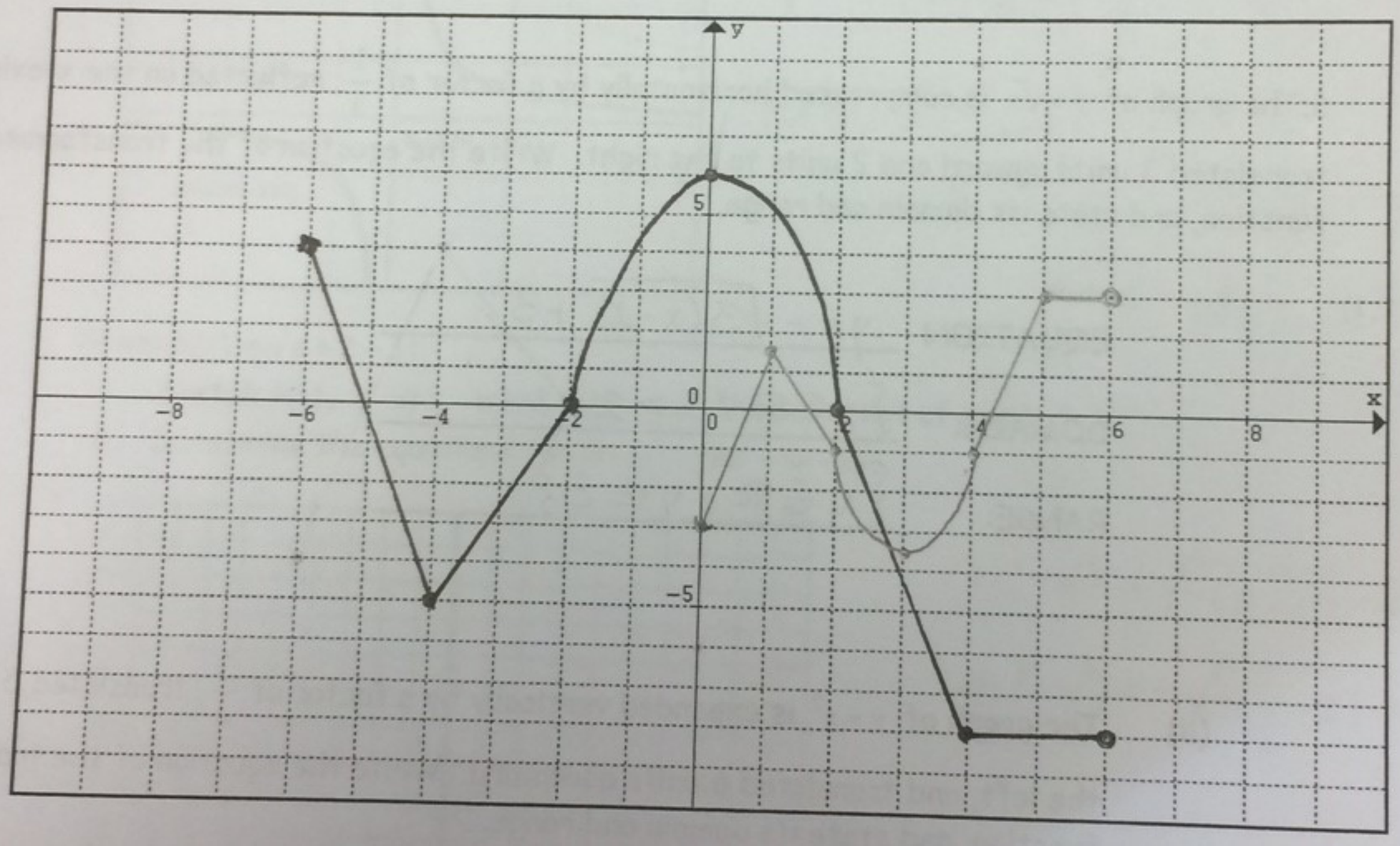
$(x,y)\rightarrow(\frac{1}{2}x,3y)$

$(2,0)\rightarrow(1,0)$

$(-1,0)\rightarrow(-\frac{1}{2},0)$

8. Given $y=p(x)$, sketch $y=-\frac{1}{2}p(2(x-3))-1$. State domain and range of transformed function.

(7) DOMAIN: $\{x\in\mathbb{R}/x<6\}$ RANGE: $\{y\in\mathbb{R}/3\leq y\}$



$(x,y)\rightarrow(\frac{1}{2}x+3,-\frac{1}{2}y-1)$

$(-6,4)\rightarrow(0,-3)$

$(-4,-5)\rightarrow(1,1.5)$

$(-2,0)\rightarrow(2,-1)$

$(0,5)\rightarrow(3,-3.5)$

$(2,0)\rightarrow(4,-1)$

$(4,-8)\rightarrow(5,3)$

$(6,-8)\rightarrow(6,3)$