

hence the transformation is area preserving.

$\frac{4}{4}$

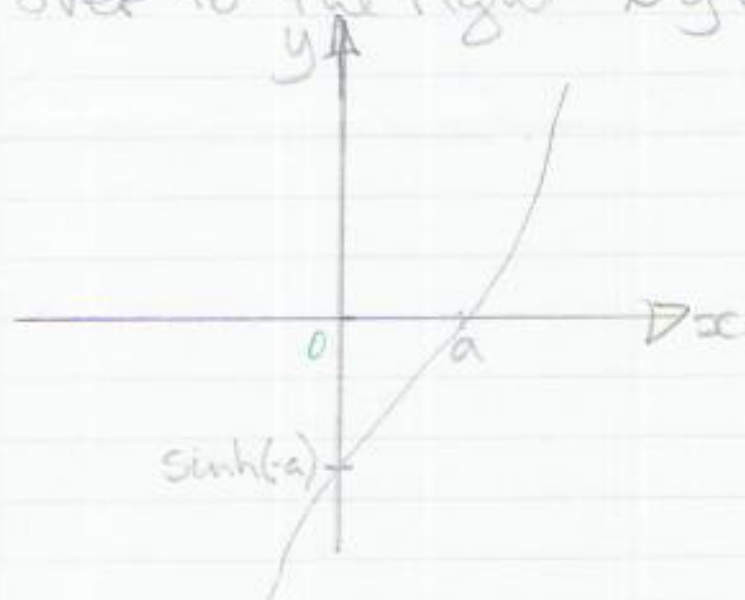
b) i) $y = \sinh(x-a)$

when $x=a$, $x-a=0$, $\sinh 0 = 0$

so $(a, 0)$ is one point.

when $x=0$, $y = \sinh(-a) < 0$

hence graph is $y = \sinh(x)$ moved over to the right by a .



$y = e^{-x}$

This is the graph $y = e^x$ reflected in the line $x=0$ or the y -axis (or the transformation $y = e^x$ $f: y \rightarrow 1/y$).

