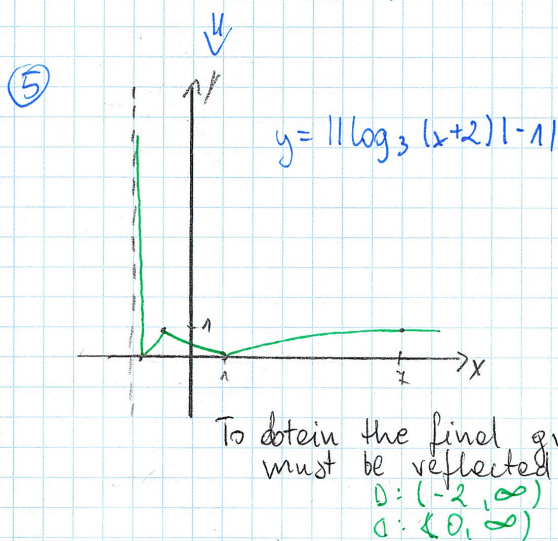
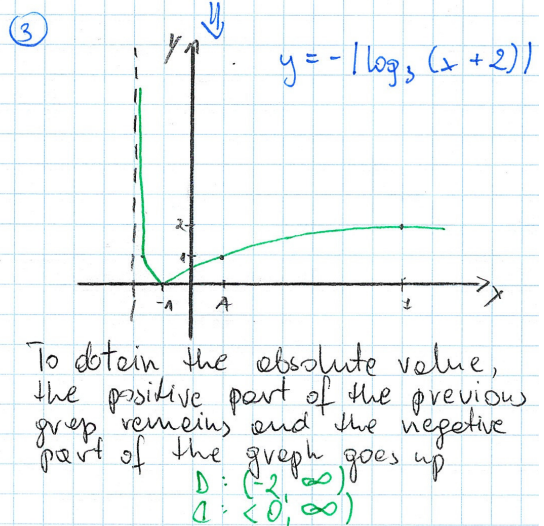
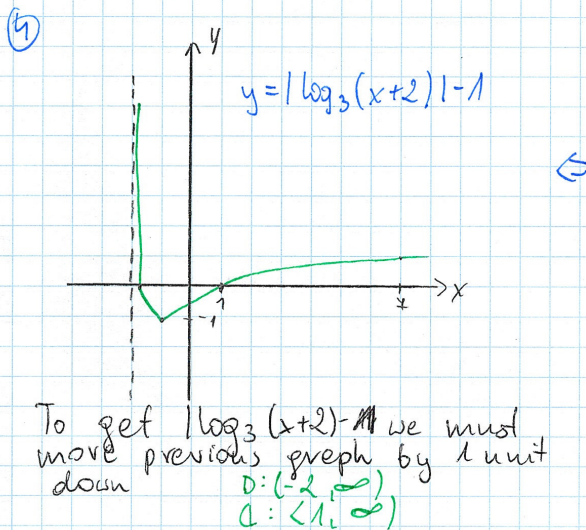
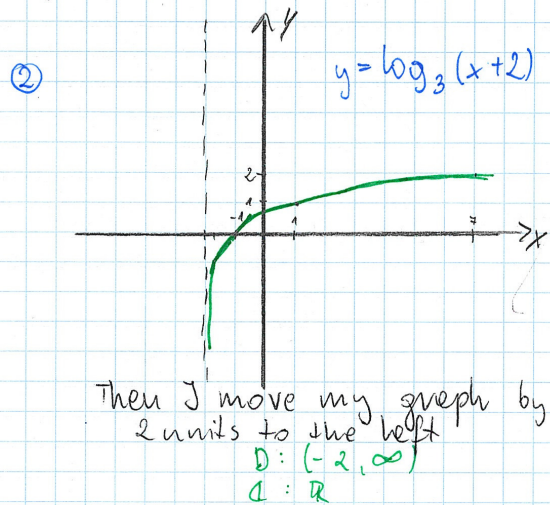
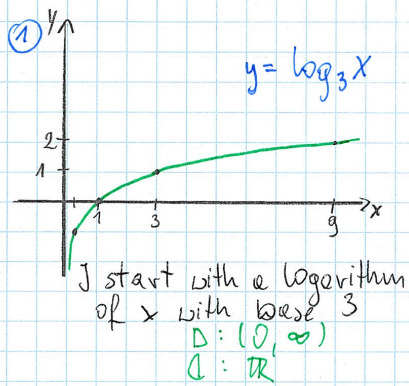


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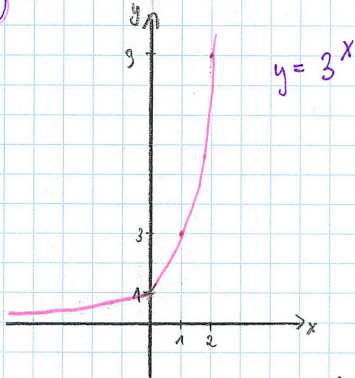
exercise: Draw the graph of $y = ||\log_3(x+2)| - 1|$. State the domain and the codomain of each function



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exercise: draw the graph of $y = |3^{-|x|} - 1|$, state the domain and codomain of each function

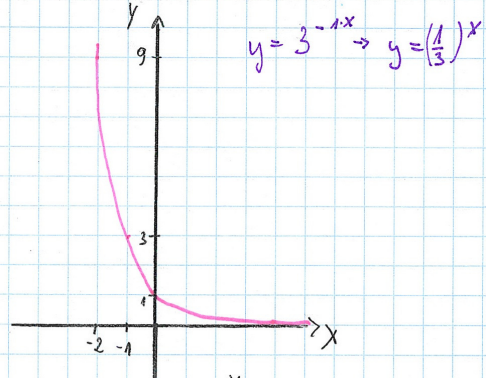
①



I start with a graph of 3 to the x power

$$D: \mathbb{R}$$
$$C: (0, \infty)$$

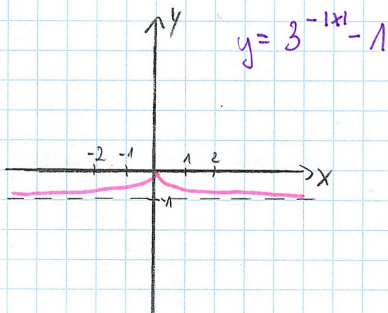
②



Then to obtain 3^{-x} , I draw the graph of $1/3$ to the x power

$$D: \mathbb{R}$$
$$C: (0, \infty)$$

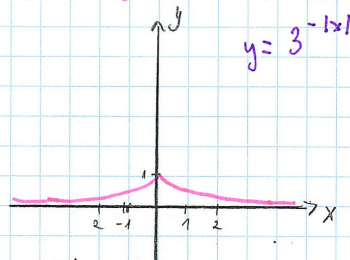
④



Now the graph must be moved by 1 unit down

$$D: \mathbb{R}$$
$$C: (-1, 0)$$

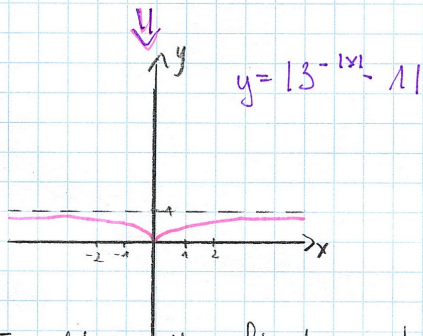
③



To get $3^{-|x|}$ right hand side must remain, and the left hand side must be shown as a mirror image

$$D: \mathbb{R}$$
$$C: (0, 1)$$

⑤



To obtain the final graph everything what was below x must be moved up

$$D: \mathbb{R}$$
$$C: [0, 1)$$