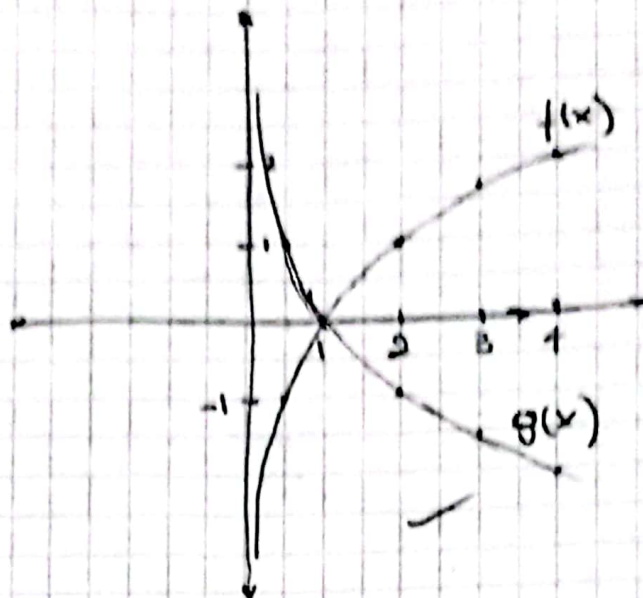


log

① ①.

$$i. f(x) = \log_2 x$$

x	$\log_2 x$
1	0
2	1
3	1.58
4	2
1/2	-1

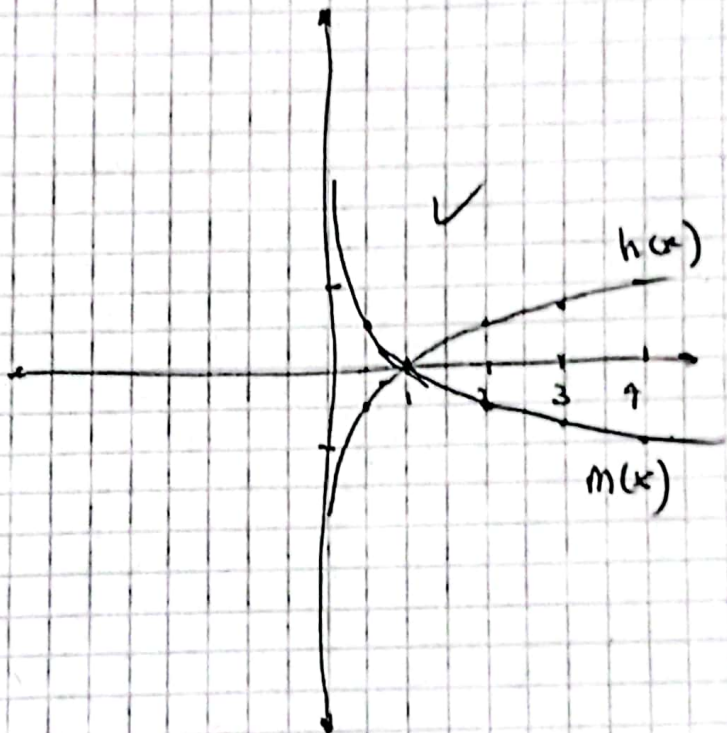


$$g(x) = \log_{1/2} x$$

x	$\log_{1/2} x$
0.5	1
0.75	0.4
1	0
2	-1
3	-1.58
4	-2

$$ii. h(x) = \log_4 x$$

x	$\log_4 x$
0.5	-0.5
0.75	-0.2
1	0
2	0.5
3	0.79
4	1



$$m(x) = \log_{1/4} x$$

x	$\log_{1/4} x$
0.5	0.5
0.75	0.20
1	0
2	-0.5
3	-0.79
4	-1

⑥ los graficos de los fn base inverso son simetricos eje $y=x$

• las fn cuyo base > 1 son crecientes

y fn cuyo base > 0 y < 1 son decrec.

2

grafico 1 = $f(x)$

Asintota = $x = -2$

grafico 2 = $g(x)$

Asintota = $x = 1$

3

a. $\log_3 x = -2$

$3^{-2} = x$

$\boxed{1/9 = x}$ ✓

b. $\log_{1/12} x = 3$

$(1/12)^3 = x$

$\boxed{0.125 = x}$ ✓

c. $\log_3 (x+4) = 1$

$3^1 = x+4$

$3-4 = x$

$\boxed{-1 = x}$ ✓

d. $\log_{1/4} (x-1) + 2 = 0$

$\log_{0.25} (x-1) = -2$

$0.25^{-2} = x-1$

$\boxed{17 = x}$ ✓

e. $4 - \log(x^2 - x + 4) = 3$

$-\log(x^2 - x + 4) = 3 - 4$

$\log(x^2 - x + 4) = 1$

$10 = x^2 - x + 4$

$6 = x^2 - x$

$\boxed{x = 3}$ ✓

q
b
c

f. $\log_3 (x^2 - 4) + 2^{-2} = 4^{-1}$

$\log_3 (x^2 - 4) + 0.25 = 0.25$

$\log_3 (x^2 - 4) = 0$

$3^0 = x^2 - 4$

$1 + 4 = x^2$

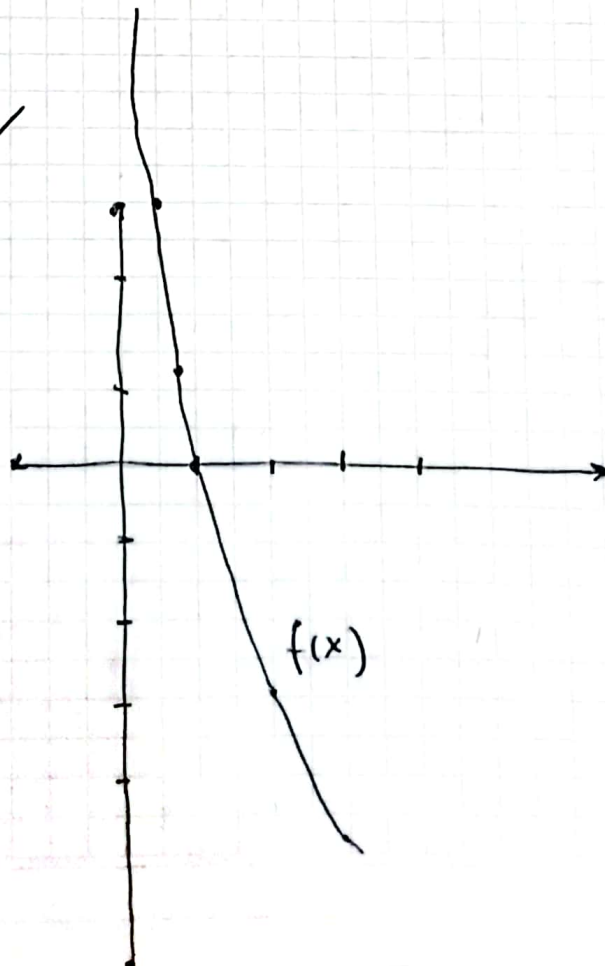
$5 = x^2$

$\sqrt{5} \quad 4 - \sqrt{5}$ ✓

4

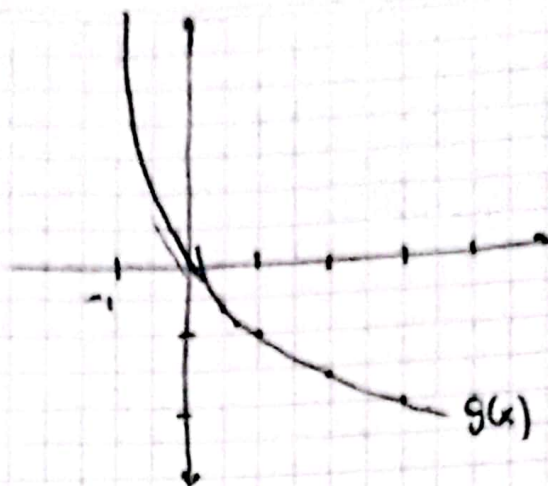
$f(x) = -3 \log_2 x$

x	$-3 \log_2 x$
0.5	3
0.75	1.24
1	0
2	-3
3	-4.75



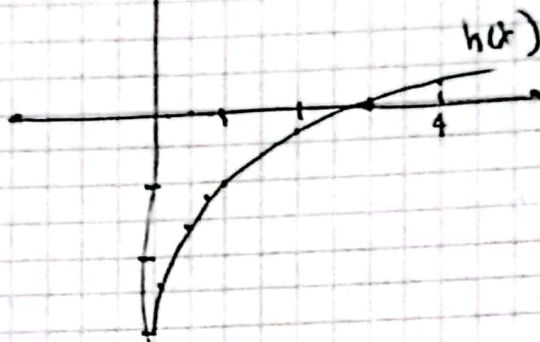
$$g(x) = \log_{1/2}(x+1)$$

x	$\log_{1/2}(x+1)$
0.5	-0.58
0.75	-0.80
1	-1
2	-1.58
3	-2
0.2	-0.26
0	0



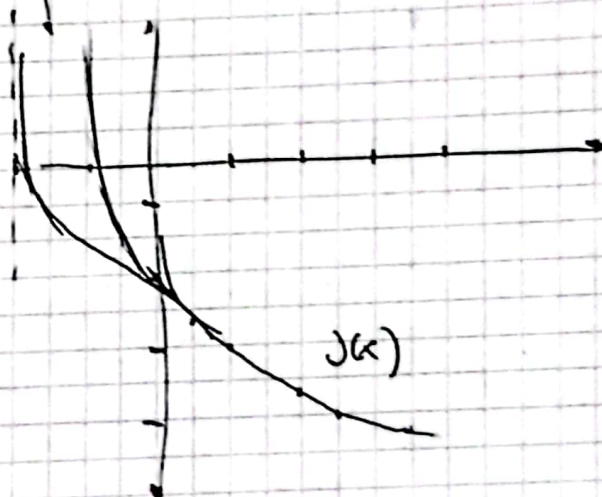
$$h(x) = \log_3 x - 1$$

x	$\log_3 x - 1$
0.2	-2.46
0.5	-1.63
0.75	-1.24
1	-1
2	-0.36
3	0
4	0.26
0	



$$j(x) = \log_{1/2}(x+1) - 2$$

x	$\log_{1/2}(x+1) - 2$
0.2	-2.26
0.5	-2.58
0.75	-2.80
1	-3
2	-3.58
3	-4
4	-4.32
0	-2



	Dom.	Inter.	C^+	C^-	I_c	I_d	Cor.	Asympt.
$f(x)$	$(0, +\infty)$	1	$(0, 1)$	$(-1, +\infty)$	$(0, +\infty)$	$(0, +\infty)$	inter. $x=0$	
$g(x)$	$(-1, +\infty)$	0	$(-1, 0)$	$(0, +\infty)$	$(-1, +\infty)$	$(-1, +\infty)$	1.29 $x=-1$	
$h(x)$	$(0, +\infty)$	3	$(3, +\infty)$	$(1, +\infty)$	$(0, +\infty)$	$(-1, +\infty)$	1 drop $x=0$	
$j(x)$	$(-1, +\infty)$	-1	$(-1, -2)$	$(-1, +\infty)$	$(-1, +\infty)$	$(-1, +\infty)$	100% $x=-1$	

5) a. $V = \log_2 > 1$

b. $F = x = 2$ 2 derecha

c. V .

d. F

e. f . 2129, 4000