

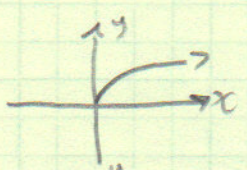
① $(-\infty, 5)$

② $(-2, 6]$

③ area continuous, $D: a > 0$
 $(0, \infty)$ $R: y \geq 3$
 $[3, \infty)$

④ assume initial population of 2 mice
monthly count $\Rightarrow$ Discrete, $D: \{0, 1, 2, 3, \dots\}$
 $R: \{2, 6, 18, 48, \dots\}$

⑤ $f(x) = x^2$
 $D: (-\infty, \infty)$ $R: [0, \infty)$


⑥ $f(x) = \sqrt{x}$
 $D: [0, \infty)$ $R: [0, \infty)$


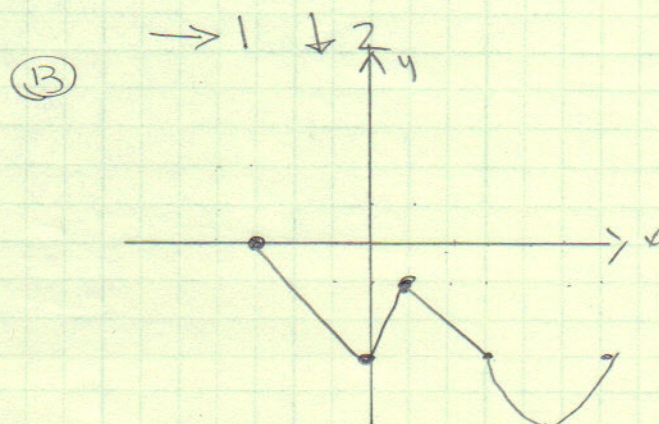
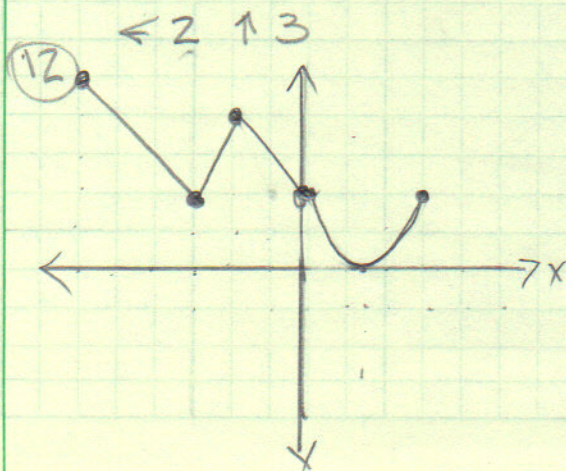
⑦ $f(x) = |x|$
 $D: [0, \infty)$ $R: [0, \infty)$


⑧ $y = (x-4)^2 - 1 \rightarrow 4 \downarrow 1$

⑨ $y = |x+1| + 1 \leftarrow 1 \uparrow 1$

- ⑩ ① horizontal right 1
-
- ② vertical stretch factor 3
-
- ③ reflect across
- x
- axis
-
- ④ vertical up 1

- ⑪ ① vertical shrink factor
- $1/2$
-
- ② vertical up 7



(14) $f(-2) - g(1) = -3$

(15) $f(4) - 3g(-2) = 13$

(16)

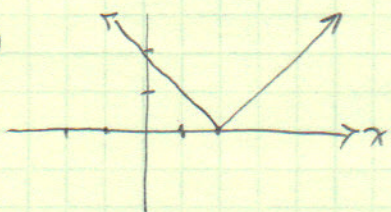


table of values

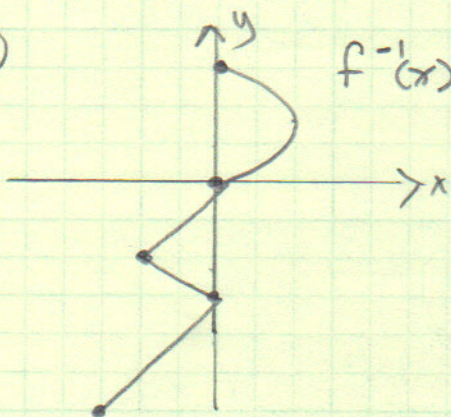
x	0	1	2	3	4
y	2	1	0	1	2

(17) $g^{-1}(x) = 3x + 6$

$g^{-1}(3) = 15$ $g^{-1}(0) = 6$ $g^{-1}(1) = 9$

(18) $g^{-1}(x) = \frac{x-1}{2}$ $g^{-1}(3) = 1$
 $g^{-1}(0) = -\frac{1}{2}$ $g^{-1}(1) = 0$

(19)



$f^{-1}(x)$ not a function

(20) $f(-3) = 0$

$f(0) = 0$

$f(2) = -2$

(21) $f^{-1}(-2) = -2$

$f^{-1}(0) = 0$, $f^{-1}(-3) = -6$

(22) Quadratic

D: $(-\infty, \infty)$
 R: $[-4, \infty)$

(23) Absolute value

D: $(-\infty, \infty)$
 R: $(-\infty, 4]$

(24) Logarithm

D: $(0, \infty)$
 R: $(-\infty, \infty)$

(25) b

(28) d

(26) e

(29) c

(27) a

(30) f