

Review

1) $y \geq 3(x-1) - 6$ or $y = 3x - 9$

2) $y = -\frac{1}{2}(x+1) + 2$ or $y = -\frac{1}{2}x + \frac{3}{2}$

4) $m = \frac{-2-b}{1+3} = \frac{-8}{4} = -2$ $y = -2(x+3) + 6$
or $y = -2x$

5) $y = 2$

7) $y = -3x + 3$

8) $y = 2x + 2$ $y = 2(x-3) + 1$ or $y = 2x - 5$

10) $y = \frac{3}{5}x - \frac{1}{5}$ $y = -\frac{5}{3}(x+2) - 3$

11) $y = \frac{3}{2}x + 3$ $y = \frac{2}{3}(x+1) + 2$

13) $m = \frac{2-4}{2+2} = \frac{-2}{4} = -\frac{1}{2}$ $y = -\frac{1}{2}(x-2) + 2$

* 14) ~~$m = \dots$~~ ~~$y = \dots$~~

16) y -axis $y = -\frac{2}{7}(x-4) - 2$

17) neither

19) even

20) odd

22) $\frac{1}{\cos x} = \frac{\sin x}{\cos x}$ neither odd

23) odd

25) neither

26) even

27) $D: \mathbb{R}$ or $(-\infty, \infty)$
 $R: y \geq -2$ $[-2, \infty)$

28) $D: x \leq 1$ or $(-\infty, 1]$
 $R: y \geq -2$ or $[-2, \infty)$

29) $D: -4 \leq x \leq 4$ or $[-4, 4]$
 $R: 0 \leq y \leq 4$ or $[0, 4]$

37) $D: -4 \leq x \leq 4$
 $R: 0 \leq y \leq 2$

38) $D: -2 \leq x \leq 2$
 $R: -1 \leq y \leq 1$

39) $\begin{cases} -x+1; & 0 \leq x < 1 \\ -x+2; & 1 \leq x < 2 \end{cases}$

41) a) $\frac{1}{\sqrt{x+2}} = \sqrt{x+2}$ $\log(-1)$ $\sqrt{1} = 1$

b) $\frac{1}{\sqrt{\frac{1}{x}+2}}$ $\log(2)$ $\frac{1}{\sqrt{\frac{1}{2}+\frac{4}{2}}} = \frac{1}{\sqrt{\frac{5}{2}}}$

c) $\frac{1}{\frac{1}{x}} = x, x \neq 0$ or $\sqrt{\frac{2}{5}}$

d) $\frac{1}{\sqrt{\frac{1}{\sqrt{x+2}}+2}}$