Algebra 2 TUESDAY 11-13-12 CLASS NOTES

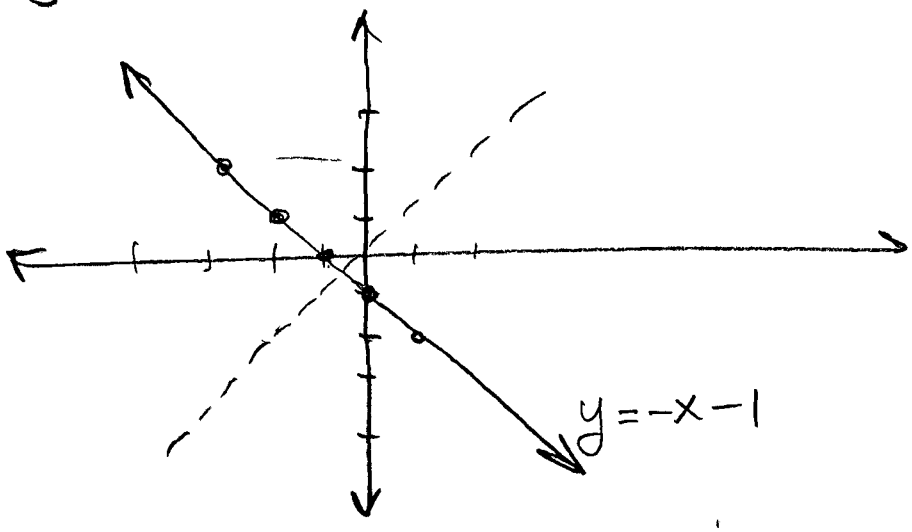
① $f(x) = -x - 1$ $\quad f^{-1}(x) = ?$

$$y = -x - 1 = f(x)$$

$$\downarrow$$

$$x = -y - 1$$

$$y = -x - 1 = f^{-1}(x)$$



(2.) $f(N) = 1 + \frac{1}{2}N \qquad f^{-1}(N) = ?$

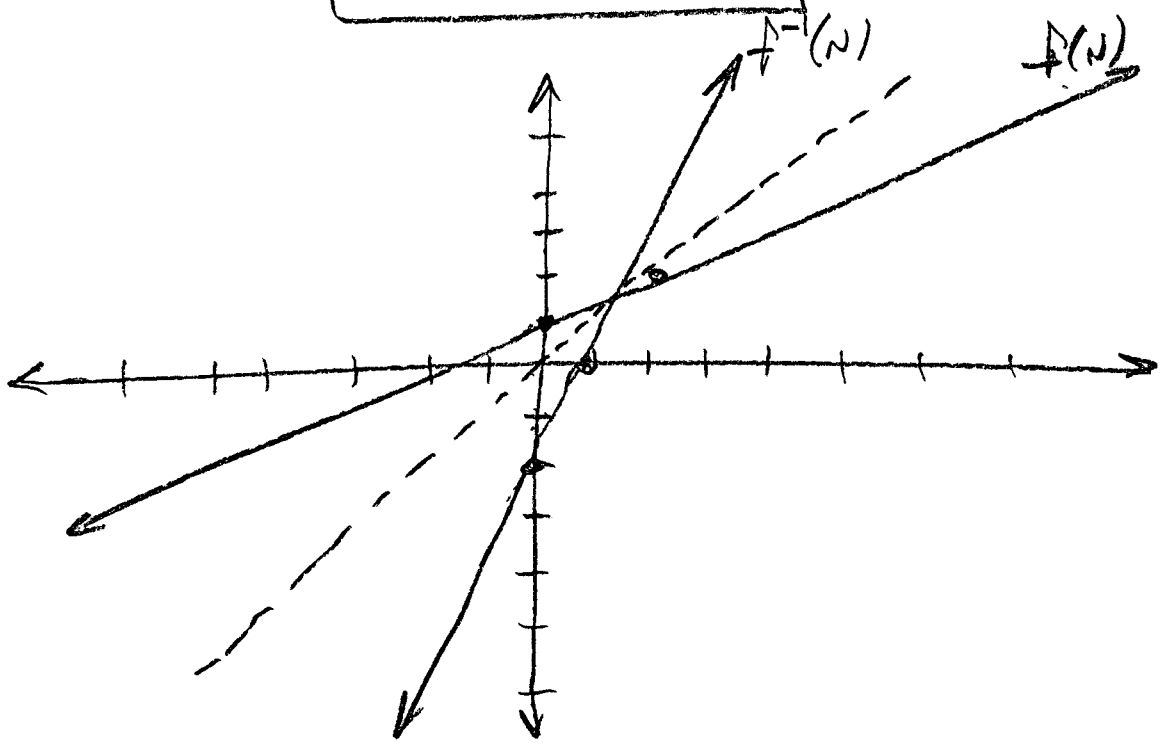
$$\boxed{M = 1 + \frac{1}{2}N}$$

$$N = 1 + \frac{1}{2}M$$

$$2(N-1) = \frac{1}{2}M \cdot 2$$

$$2N - 2 = M$$

$$\boxed{f^{-1}(N) = 2N - 2}$$



(13) $y = \log_6(2x+5) + 3$ $d = ?$ $r = ?$ All R ✓

$2x+5 > 0$

$\frac{2x}{2} > \frac{-5}{2}$

$x > -\frac{5}{2}$ ✓ domain

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(17) $y = \log_2(3x+11) + 4$ $d = ?$ $r = ?$ All R

$y = \log_b x$

$3x+11 > 0$

$3x > -11$

$x > -\frac{11}{3}$ domain.

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(16) $y = \log_4(2x+5) + 5$ $d = ?$ $r =$ All R

$2x+5 > 0$

$x > -\frac{5}{2}$ $d = ?$

(21) $\log_5 125 = \boxed{3}$

(24) $\log_5\left(\frac{1}{125}\right) = \boxed{-3}$

(26) $\log_7 343 = \boxed{3}$

(25) $\log_3 9 = \boxed{2}$

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(28) $4\log_9 u - 8\log_9 v$ (ONE Log)

$\log_9 u^4 - \log_9 v^8$

$\boxed{\log_9\left[\frac{u^4}{v^8}\right]}$

(27) $\log_8 c + \frac{\log_8 a}{2} + \frac{\log_8 b}{2}$

$\log_8 c + \frac{1}{2}\log_8 a + \frac{1}{2}\log_8 b$

$\log_8 c + \log_8 a^{\frac{1}{2}} + \log_8 b^{\frac{1}{2}}$

$\log_8 c a^{\frac{1}{2}} b^{\frac{1}{2}}$