Arellano Granados Angel Mariano 11/6/21

Tarea 13

① $\log\left(\sqrt{\frac{(x+4)^3}{x^3}}\right)$ $\frac{3}{2}\log(x+4) - \frac{3}{2}\log x$

② $4^{x-5} = 8$ $x - 5\log 4 = \log 8$ $\frac{\log 8}{\log 4} + 5 = x$

$x = 6.5$

③ $\log_3(4x+19) = 4$ $3^4 = 81$ $4x = +100$ $\frac{100}{4} = 25$

④ $\log\sqrt{\frac{yz^3}{x^5}} = \frac{1}{2}\log y + \frac{3}{2}\log z - \frac{5}{2}\log x$

⑤ $\ln x = 3$ exp: $e^3 = x$

$e^y = 6$ log: $\ln 6 = y$

⑥ $\log_7 6 = 0.9271$

⑦ 9500 con 17% interes

(a) 1 año: 11115

(b) 2 años: 13004.55

⑧ $17^{-x+8} = 7^{-10x}$

$-x\log 17 + 8\log 17 = -10x\log 7$

$8\log 17 = x\log 17 - 10x\log 7$

$8\log 17 = x(\log 17 - 10\log 7$

$x = \frac{8\log 17}{\log 17 - 10\log 7}$

⑨ $\log_2(x+6) = 3 - \log_2(x+4)$

$\log_2(x^2+10x+24) = 3$ $x^2+10x+16$

-8 2^3 8 $(x+8)(x+2)$

$x = -8$ $x = -2$

⑩ $\log(yx^4) = \log y + 4\log x$

⑪ $4\log_6 y - \frac{1}{2}\log_6 z + 3\log_6 x$

$\log_6\left(\frac{y^4x^3}{z^{1/2}}\right)$

⑫ $3\ln(x-6) = 15 = \ln(x-6) = e^5 + 6 = 154.41$

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(13) $6^1 = 6$ logaritmica: $\log_6 6 = 1$

$\log_4 \frac{1}{64} = -3$ exponencial: $4^{-3} = \frac{1}{64}$

(14) $\log_6 x = -2$ $x = 1/36$

(15) $\left(\frac{3}{2}\right)^{2.4} = 2.646$

$1.45 - 0.7 = 0.771$