

CK12 Review Problems

① $x \log 5 = \log 65$
 $x \approx 2.594$

② $x \log 7 = \log 75$
 $x \approx 2.219$

③ $x \log 2 = \log 90$
 $x \approx 6.492$

④ $(x-2) \log 3 = \log 43$
 $x \approx 5.424$

⑤ $(x+1) \log 6 = \log 10$
 $x \approx 0.285$

⑥ $(3x-2) \log 11 = \log 36$
 $x \approx 1.165$

⑦ $(2x-5) \log 13 = \log 27$
 $x \approx 3.142$

⑧ $(x-3) \log 7 = \log 38$
 $x \approx 4.869$

⑨ $4^x = 8$
 $2^{2x} = 2^3$
 $2x = 3$

$x = 3/2$

⑩ $3^{2(x-2)} = 3^3$
 $2x-4 = 3$
 $x = 3.5$

⑪ $5^{2x+1} = 5^3$

$2x+1 = 3$

$2x = 2$

$x = 1$

⑫ $3^6 = 3^{4x-6}$

$6 = 4x-6$

$12 = 4x$

$3 = x$

⑬ $2^{x-3} = 8$

$2^{x-3} = 2^3$

$x-3 = 3$

$x = 6$

⑭ ~~$2^{4x+2} = 2^{5x+5}$~~

$2^{4x+2} = 2^{5x+5}$

$6x+2 = 5x+5$

$x = 3$

~~$x = 3$~~

⑮ $3^{3x+5} = 3 \cdot 3^{2x+4}$

$3x+5 = 2x+7$

$x = 2$