C12 - 7.2 - Separate/Factoring/Solving Exponents Notes

Solve for x

$5(2^x) + 2^x = 48$

$3^x + 4(3^x) - 45 = 0$

$-3(5^x) = 2(5^x) - 5$

x=3

x=2

x=0

$3^x + 3^{x+1} = 108$

$2^x - 2^{x+3} + 15 = 0$

$9^{x+2} - 243 = 81^x - 9$

x=3

x=1

x=.5

C12 - 7.2 - Separate/Factoring/Solving Exponents Notes

Solve for x

$(2^x)^2 - 6(2^x) + 8 = 0$

$(3^x)^2 - 2(3^x) - 3 = 0$

x=1

x=1,2

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

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

x=1,0

x=1/2,0

C12 - 7.2 - Separate/Factoring/Solving Exponents Notes

Solve for x

$5^x - 5^{x-1} - 4 = 0$

$10 - 3^x = 3^{2-x}$

x=1

x=2,0

$7^x - 28(7^{-x}) = 3$

$3(3^x)^2 - 7(3^x) + 2 = 0$

x=1

x=-1, 0.6309