

In-Class Assignment 8 (Due: 11/1/21)

Solve the following exponential and logarithmic equations.

1. $4^{-3x-2} = 4^{-x}$

2. $\frac{36^{3x}}{36^{2x}} = 216^{2-x}$ (hint: write both sides as an exponential with base 6)

3. $9^{x-10} = 1$

4. $e^{2x} - e^x - 132 = 0$

5. $\ln(10 - 3x) = \ln(-4x)$

6. $\log(x) + \log(x - 3) = \log(7x)$

Answers: 1. $x = -1$ 2. $x = 6/5$ 3. $x = 10$ 4. $x = \ln 12$ 5. $x = -10$ 6. $x = 10$