

## Algebraic Solutions of Exponential and Log Functions - Worksheet

NAME:

DATE:

1. Solve the equation by expressing your answer in terms of natural logarithms and then use a calculator to approximate the answer.

(a)  $2^x = 32$

(c)  $5^x = 3^{2x-1}$

(b)  $3^{2x-2} = 81$

(d)  $2e^{-1.3x} = 14$

2. Solve the equation  $\ln(5x - 2) + \ln(x) = \ln(3)$ .

3. The half-life of cobalt-60 is 5.3 years. How long will it take for 100 grams to decay to 33 grams?