

SOLVE LOGARITHMIC EQUATIONS

$$\ln x - \ln(x - 3) = \ln 2$$

POWER RULE (up)

$$x = 2x - 6$$

PRODUCT RULE

$$\frac{x}{x - 3} = 2$$

QUOTIENT RULE

$$x = 6$$

EXPONENTIAL FORM

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

(kick base/drop the logs)

$$\ln \frac{x}{x - 3} = \ln 2$$

SOLVE X