

# Homework

p. 519: 25-37 (odds), 38, 39

**SOLVING LOGARITHMIC EQUATIONS** Solve the equation. Check for extraneous solutions.

25.  $\ln(4x - 7) = \ln(x + 11)$

27.  $\log_5(2x - 7) = \log_5(3x - 9)$

29.  $\log_3(18x + 7) = \log_3(3x + 38)$

31.  $\log_8(5 - 12x) = \log_8(6x - 1)$

**EXPONENTIATING TO SOLVE EQUATIONS** Solve the equation. Check for extraneous solutions.

33.  $5 \ln x = 35$

35.  $5.2 \log_4 2x = 16$

37.  $\log_2 x + \log_2(x - 2) = 3$

38.  $\log_4(-x) + \log_4(x + 10) = 2$

39.  $\ln(x + 3) + \ln x = 1$