

## APPLYING PROPERTIES

### Solving: Work With a Partner

Solve each equation. Take turns writing the next step in the solving process. Show your work on a separate piece of paper.

1)  $\log(x+2) + \log(x) = \log(3)$

2)  $\log_3(n^2 + 5) - \frac{1}{2}\log_3(4) = 1$

3)  $\ln(-a-7) - 2\ln(5) = 4$

4)  $\log(x) - \log(4) + 3\log(2) = 2$

### Evaluating: Work Independently

Use the given information below to evaluate each expression. Show your work on this paper.

#### Given

$$\log_b(2) = 8$$

$$\log_b(5) = 20$$

$$\log_b(12) = 29.5$$

$$\log_b(3) = 13.5$$

$$\log_b(8) = 24$$

$$\log_b(15) = 33.5$$

$$\log_b(4) = 16$$

$$\log_b(10) = 28$$

$$\log_b(18) = 35$$

#### Evaluate

1)  $\log_b(6) =$

2)  $\log_b(20) =$

3)  $\log_b(64) =$