



Careers Child-care workers perform a combination of basic care and teaching duties.

What values of a and b make each inequality true?

25. $-ab > 0$ 26. $ab < 0$ 27. $a^2b > 0$ 28. $\frac{a}{b} > 0$

29. **Child Care** In Virginia, for every group of 5 two-year-olds in day care, there must be at least 1 teacher. If there are 19 two-year-olds in a class, how many teachers must the center have?
30. Your brother wants to buy a new multi-disc DVD player for \$182.89. He earns \$6.85 per hour working at a theater. How many hours will he need to work to earn enough money for the player?
31. **Challenge** A student solved $\frac{a}{b} > 2$ for a and got the solution $a > 2b$. Is the student's answer correct for all values of b ? Explain.

Test Prep and Mixed Review **Practice**

Multiple Choice

32. At one store, a DVD is on sale for 25% off \$26.99. At another store, the same DVD is on sale for 30% off \$29.99. Why should Rueben buy the DVD at the first store?
- (A) 30% is more than 25%.
 (B) \$26.99 is less than \$29.99.
 (C) 25% of \$26.99 is less than 30% of \$29.99.
 (D) 75% of \$26.99 is less than 70% of \$29.99.
33. A pattern of equations is shown below. Which statement best describes this pattern of equations?
- 64% of 25 = 16
 16% of 100 = 16
 4% of 400 = 16
 1% of 1600 = 16
- (F) When the percent is divided by 4, and the other number is multiplied by 4, the answer is 16.
 (G) When the percent is multiplied by 4, and the other number is divided by $\frac{1}{4}$, the answer is 16.
 (H) When the percent is divided by 4, and the other number is divided by 4, the answer is 16.
 (J) When the percent is multiplied by 4, and the other number is multiplied by 4, the answer is 16.
34. Two banners are similar. The height of the smaller banner is 24 inches, while the height of the larger banner is 60 inches. What scale factor was used to dilate the smaller banner to the larger one?
- (A) 0.4 (B) 0.6 (C) 1.4 (D) 2.5

GO for Help

For Exercises	See Lesson
35–37	6-5

Algebra Solve each inequality. Graph the solutions.

35. $y + 3 \leq 29$ 36. $a - 7 > 15$ 37. $w - 6 \geq 9$