

LESSON
5.2

Practice C

For use with the lesson "Solve Inequalities Using Multiplication and Division"

Match the verbal sentence with the inequality. Then solve the inequality.

- | | |
|---|-------------------------------|
| 1. The quotient of x and -24 is greater than 8. | A. $-24x > 8$ |
| 2. The product of -24 and x is greater than 8. | B. $8x < -24$ |
| 3. The product of 8 and x is less than -24 . | C. $\frac{x}{-24} > 8$ |

Solve the inequality. Graph your solution.

4. $-3x \geq -18$



5. $5x > -12.5$



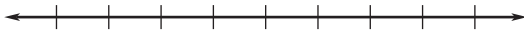
6. $\frac{d}{-4} \leq 9$



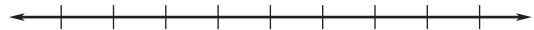
7. $0.75p \leq -18$



8. $48 < -8c$



9. $0 \geq -108b$



10. $\frac{y}{1.2} \geq -8.5$



11. $-1.25x > 6.25$



12. $-42.6 > 6n$



13. $24a < -\frac{48}{3}$



14. $\frac{2}{5}x > 16$



15. $-\frac{3}{4}m \leq 24$



LESSON
5.2
Practice C *continued*
For use with the lesson "Solve Inequalities Using Multiplication and Division"

Write the verbal sentence as an inequality. Then solve the inequality and graph your solution.

16. The product of 2.5 and x is less than or equal to 8.



17. The quotient of m and -8 is greater than $-\frac{4}{5}$.



18. The product of m and -1.2 is less than 3.6.



19. The quotient of d and $-\frac{1}{4}$ is less than $-\frac{3}{2}$.



20. Write an inequality in the form $\frac{x}{a} < b$ such that the solutions are all real numbers greater than -3 .

21. **Saving Money** You earn \$10.25 per hour at your job. Write and solve an inequality to show how many full hours h you need to work to save at least \$820. Graph the inequality.



22. **Marathon** You ran a $26\frac{1}{5}$ -mile marathon in $3\frac{1}{4}$ hours. Write and solve an inequality to describe the average speeds s of runners who were faster than you.

23. **Potting Soil** A store is selling bags of potting soil for \$1.79 each. There is a \$.60 mail-in rebate on each bag of soil bought. What are the possible numbers of bags of potting soil you can buy if you spend no more than \$15?

24. **Treadmill** In order to get a good workout on your treadmill, you figure you have to run 528 feet in one minute. What are the possible numbers of miles you have to run in 20 minutes to exceed this rate? (*Hint*: 1 mile = 5280 feet)

25. **Bicycle** A sporting goods store is selling a bicycle for \$610. You can spend no more than \$525 for the bicycle, so you wait for it to go on sale. Also, you plan to use a store coupon for 5% off the sale price. For which decreases in price will you consider buying the bicycle?