45. ⬧ **TAKS REASONING**   Some musicians use audio amplifiers so that everyone in the audience can hear the performance. The amount y of amplification per person is given by the equation $y = \frac{w}{p}$ where w is the total amount (in watts) of amplification provided by the amplifier and p is the number of people in the audience.

   a. Solve Each person requires 8 watts to 10 watts of amplification. Write and solve an inequality to find the possible total amounts of amplification that an amplifier would need to provide for 300 people.

   b. Decide Will an amplifier that provides 2900 watts of amplification be strong enough for an audience of 350 people? 400 people? *Explain*.

   c. Justify Your band usually performs before an audience of 500 to 600 people. What is the least amount of amplification that your amplifier should provide? *Justify* your answer.

   Animated Algebra at classzone.com

46. CHALLENGE You and three friends are planning to eat at a restaurant, and all of you agree to divide the total cost of the meals and the 15% tip equally. Each person agrees to pay at least $10 but no more than $20. How much can you spend altogether on meals before the tip is applied?
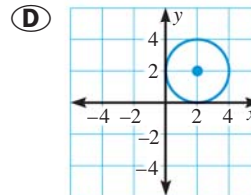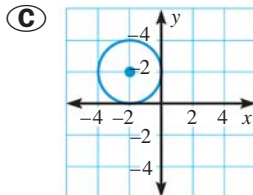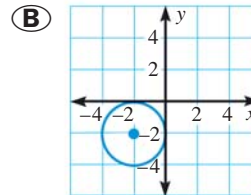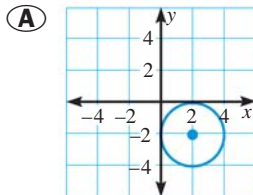
MIXED REVIEW FOR TAKS

47. ⬧ **TAKS PRACTICE** Which circle has a center located at coordinates $(-2, 2)$? *TAKS Obj. 6*

Ⓐ

Ⓑ

Ⓒ

Ⓓ

QUIZ *for Lessons 6.3–6.4*

Solve the inequality, if possible. Graph your solution.

1. $-\frac{1}{5}(x - 5) > x - 9$ *(p. 369)*

2. $\frac{1}{2}y - 8 \geq -2y + 3$ *(p. 369)*

3. $-4r + 7 \leq r + 10$ *(p. 369)*

4. $-2(s + 6) \leq -2s + 8$ *(p. 369)*

5. $a - 4 \geq -1$ *or* $3a < -24$ *(p. 380)*

6. $22 > -3c + 4 > 14$ *(p. 380)*

7. $-27 \leq 9m \leq -18$ *(p. 380)*

8. $5n + 2 > -18$ *or* $-3(n + 4) > 21$ *(p. 380)*