

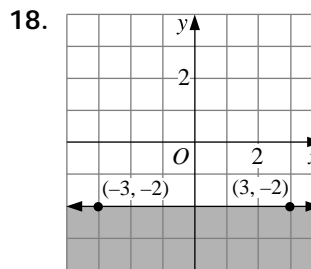
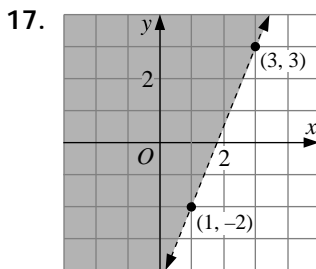
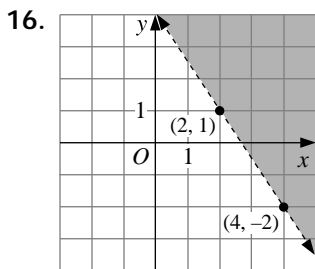
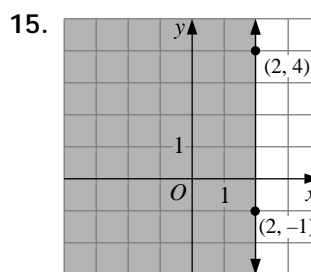
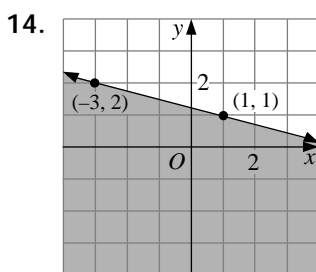
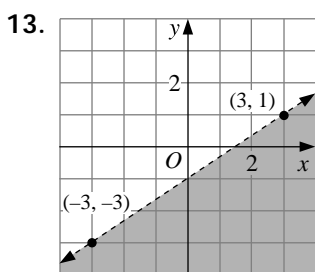
# Practice 43

FOR USE WITH SECTION 7.4

Graph each inequality.

- |                       |                    |                       |  |
|-----------------------|--------------------|-----------------------|--|
| 1. $y < \frac{1}{2}x$ | 2. $y \leq 2x - 5$ | 3. $y > 7 - 4x$       | 4. $y > -1.5x + 2.5$                     |
| 5. $y \leq -3.5$      | 6. $y > 0.75x + 1$ | 7. $y \leq -2.2x + 6$ | 8. $y > 3.6x - 5.2$                      |
| 9. $x + y > 2$        | 10. $x \leq 4.5$   | 11. $2x - 5y < 10$    | 12. $\frac{1}{4}x + \frac{1}{3}y \leq 1$ |

Find an inequality that defines each shaded region.



19. If a horizontal force is exerted on an object at rest on a table top, the object will slide if the horizontal force is greater than the maximum frictional resistance exerted by the object. This maximum frictional resistance is the weight of the object times the *coefficient of friction* of the surface.
- Suppose the coefficient of friction of a certain table top is 0.28. Write and graph an inequality that relates the force that will start an object moving to the weight of the object.
  - Suppose an object weighing 5 lb exerts a maximum frictional resistance of 2.4 lb when placed on a certain table top. Write and graph an inequality that relates the force that will start an object moving on this table top to the weight of the object.
20. **Open-ended Problem** Find a situation in your experience that can be modeled by a linear inequality. Identify the variables and write and graph your inequality.