

**Practice**Student Edition  
Pages 239–244***Direct and Inverse Variation******Solve. Assume that  $y$  varies directly as  $x$ .***

1. If  $y = -4$  when  $x = 2$ , find  $y$  when  $x = -6$ .
2. If  $y = 16$  when  $x = 4$ , find  $y$  when  $x = 6$ .
3. If  $y = -5$  when  $x = 12.5$ , find  $x$  when  $y = 15$ .
4. If  $y = 7$  when  $x = 4$ , find  $y$  when  $x = 12$ .
5. If  $y = 80$  when  $x = 32$ , find  $x$  when  $y = 100$ .
6. If  $y = 198$  when  $x = 22$ , find  $y$  when  $x = 182$ .
7. If  $y = 28$  when  $x = 168$ , find  $y$  when  $x = 108$ .
8. If  $y = 24$  when  $x = 6$ , find  $y$  when  $x = -4$ .

***Solve. Assume that  $y$  varies inversely as  $x$ .***

9. If  $y = -4$  when  $x = 2$ , find  $y$  when  $x = -6$ .
10. If  $y = 16$  when  $x = 4$ , find  $y$  when  $x = 6$ .
11. If  $y = -5$  when  $x = 12.5$ , find  $x$  when  $y = 15$ .
12. If  $y = 7$  when  $x = 4$ , find  $y$  when  $x = 12$ .
13. If  $y = 27$  when  $x = 12$ , find  $x$  when  $y = -12$ .
14. If  $y = 6$  when  $x = -4$ , find  $x$  when  $y = \frac{12}{5}$ .
15. If  $y = 60$  when  $x = 80$ , find  $x$  when  $y = -20$ .
16. If  $y = 40$  when  $x = 16$ , find  $y$  when  $x = 10$ .