

Name _____

Date _____



Practice B

For use with pages 437–445

Find an equation for the inverse relation.

1. $y = 2x + 1$

2. $y = \frac{1}{3}x$

3. $y = 6x - 3$

4. $y = -4x + 6$

5. $y = \frac{1}{2} - \frac{2}{3}x$

6. $y = x^2 + 2$

Verify that f and g are inverse functions.

7. $f(x) = x + 4; g(x) = x - 4$

8. $f(x) = 7x; g(x) = \frac{1}{7}x$

9. $f(x) = x^5; g(x) = \sqrt[5]{x}$

10. $f(x) = 2x - 4; g(x) = \frac{1}{2}x + 2$

11. $f(x) = 3 - x; g(x) = 3 - x$

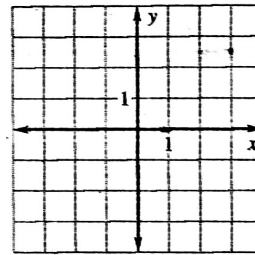
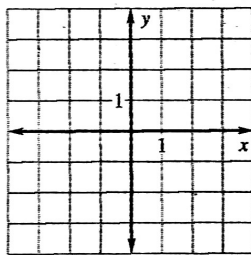
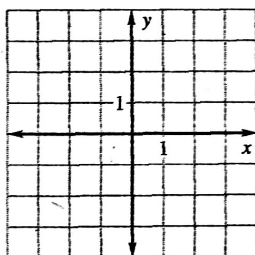
12. $f(x) = x^2 + 5, x \geq 0; g(x) = \sqrt{x - 5}$

Graph the function f . Then use the horizontal line test to determine whether the inverse of f is a function.

13. $f(x) = 2x + 1$

14. $f(x) = -x - 2$

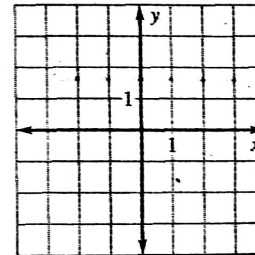
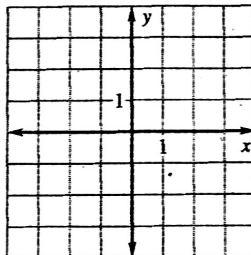
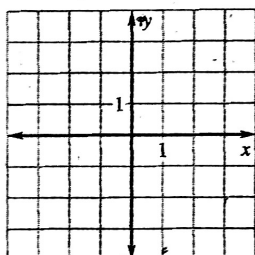
15. $f(x) = \frac{1}{2}x^2 - 1$



16. $f(x) = -x^2 + 3, x \geq 0$

17. $f(x) = \frac{1}{4}x^3$

18. $f(x) = |x| + 1$



19. **Temperature Conversion** The formula to convert temperatures from degrees Celsius to Fahrenheit is $F = \frac{9}{5}C + 32$. Write the inverse function, which converts temperatures from Fahrenheit to Celsius. What is the Celsius temperature that is equal to 94 degrees Fahrenheit?

20. **Sale Price** A department store is having a storewide 20% discount sale. The sale price S of an item that has a regular price of R is $S = R - 0.2R$. Write the inverse function. What is the regular price for an item that is on sale for \$38.40?