

Trig Chapter 3 Practice Test 2

Name _____

Tell whether the following relations are functions or not.

- _____ 1. (3, 3) (4, 4) (4, 5) (5, 5)
- _____ 2. (-2, 5) (9, 2) (1, -7) (-2, -1)
- _____ 3. (-11, 11) (0, 6) (3, 1) (7, -3)

Let $f(x) = 3x + 10$ and $g(x) = 3x - 10$.

- _____ 4. Find $f(-1)$
- _____ 5. Find $g(-4)$
- _____ 6. Find $f(g(2))$
- _____ 7. Find $g(f(5))$
- _____ 8. Find $f(g(x))$
- _____ 9. Find $g(f(x))$
- _____ 10. Find $f(f(x))$
- _____ 11. Find $g(g(x))$
- _____ 12. Find $f(g(f(x)))$
- _____ 13. If $f(x) = -5x - 3$, find the inverse of $f(x)$. [Inverse is $f^{-1}(x)$]
- _____ 14. If $f(x) = \frac{2x}{7} + 1$, find the inverse of $f(x)$. [Inverse is $f^{-1}(x)$]

In 15-19, determine the domain of the function.

_____ 15. $f(x) = \frac{8}{5x-2}$

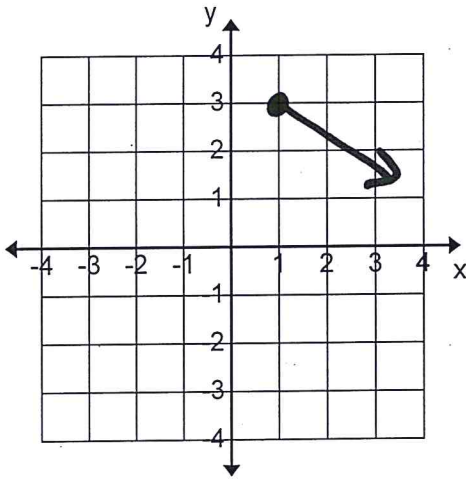
_____ 16. $f(x) = x - 4$

_____ 17. $f(x) = \sqrt{x+7}$

_____ 18. $f(x) = \sqrt{5x-10}$

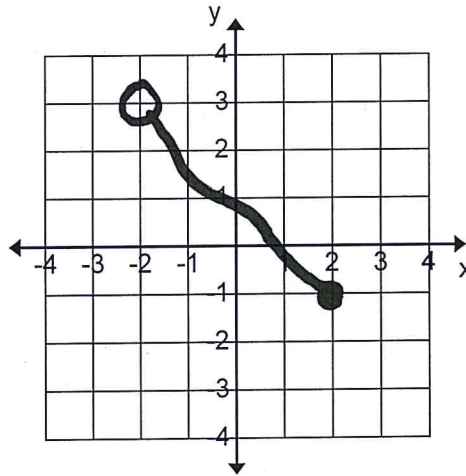
_____ 19. $f(x) = \frac{3}{x}$

Give the domain and range of each graph below.



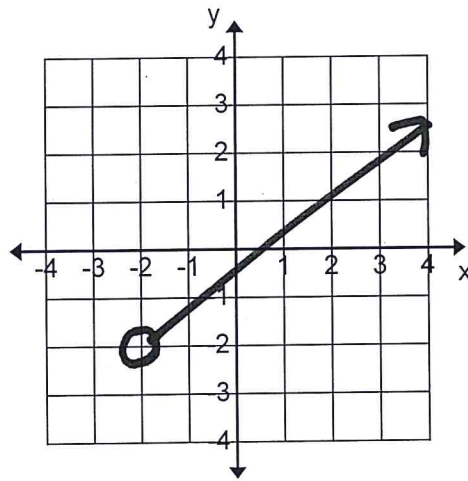
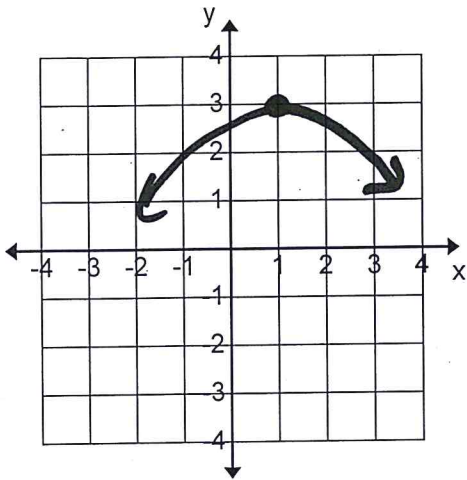
Domain = _____

Range = _____



Domain = _____

Range = _____

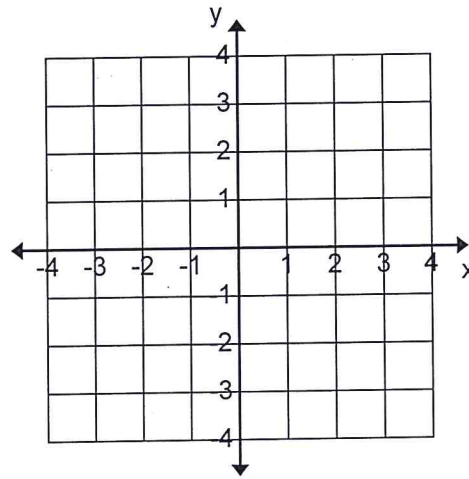
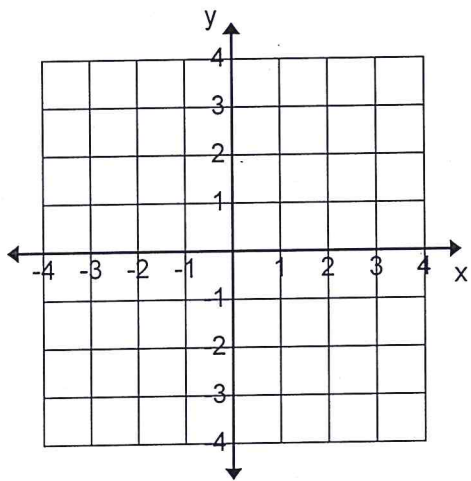


Domain = _____

Domain = _____

Range = _____

Range = _____



Graph the given inequalities on the graphs above.

24. $y < x - 2$

25. $y \geq \frac{2}{3}x + 1$

Give the interval notation for the following.

_____ 26. $x > 4$

_____ 27. $2 < x \leq 5$

_____ 28. $x < -11$

_____ 29. $-1 < x \leq 1$

_____ 30. $x \leq 8$

_____ 31. $x > 0$