Math 10 Functions and Relations Canvas

Visit hunkim.com/10functions to access these questions with video solutions.

- **Connecting data, graphs, and situations**
- **Communicating domain and range in both situational and non-situational contexts**
- **Connecting graphs and context**
- **Understanding the meaning of a function**
- **Identifying whether a relation is a function**
- **Using function notation**

1. **Find the domain of $f(x) = 3x + 2$.**

2. **$f(x) = 4x - 1$. Evaluate $f(-3)$.**

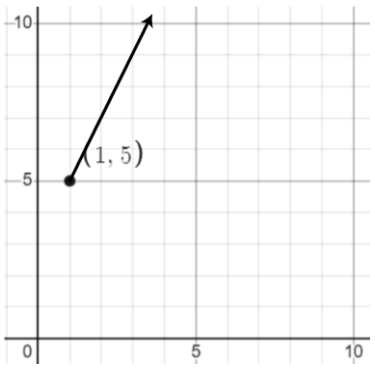
3. **$f(x) = 5$. Find the domain.**

4. **$x = 2$. Find the range.**

5. **$f(x) = 2x + 3, x \geq 1$. Find the domain in interval notation.**

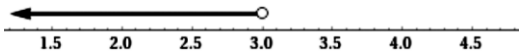
6. **$f(x) = 2x + 3, x \geq 1$. Find the range in set notation.**

7. **To draw this ray on Desmos, what kind of domain notation is used?**

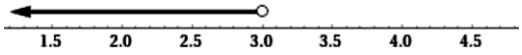


8. Write $y < 3$ in interval notation.

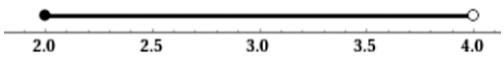
9. Express this number line in set notation:



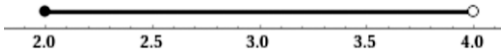
10. Express this number line in interval notation:



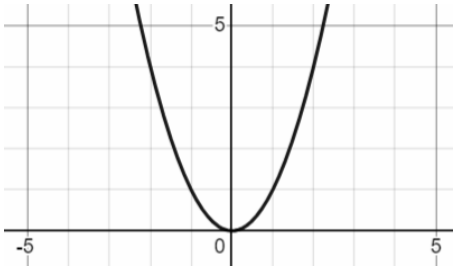
11. Express this number line in set notation:



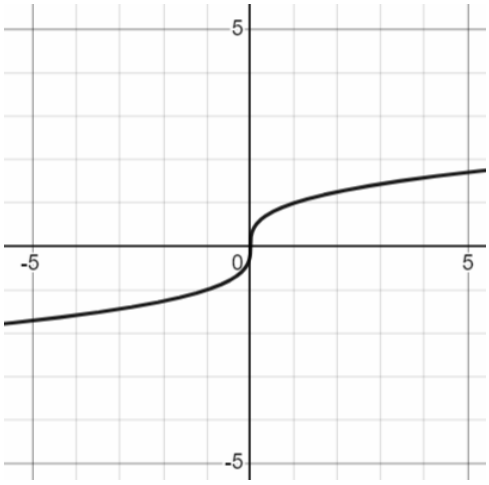
12. Express this number line in interval notation:



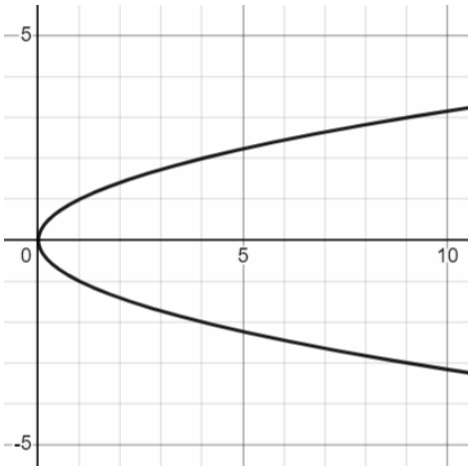
13. Is the following graph a function?



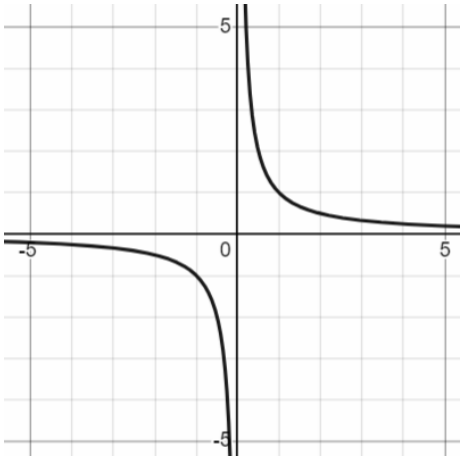
14. Is the following graph a function?



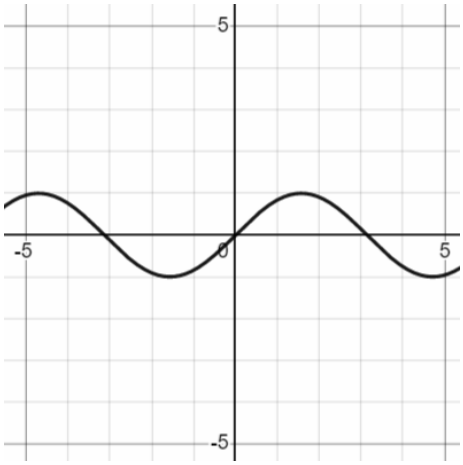
15. Is the following graph a function?



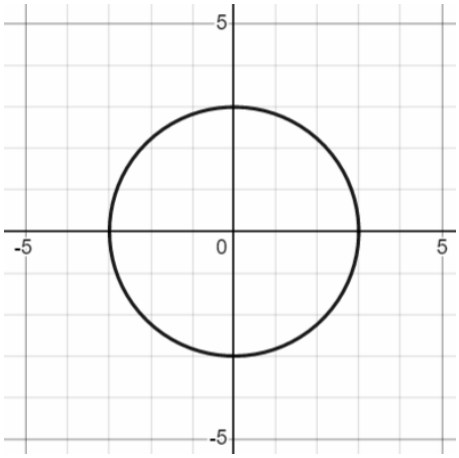
16. Is the following graph a function?



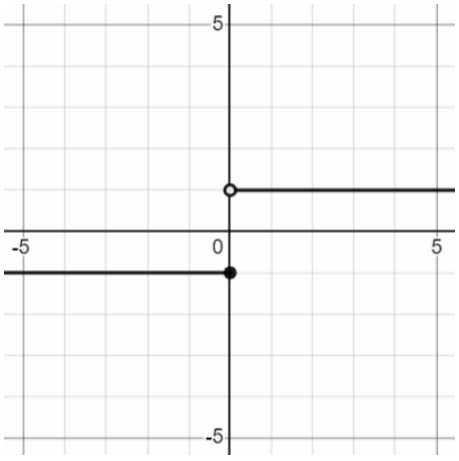
17. Is the following graph a function?



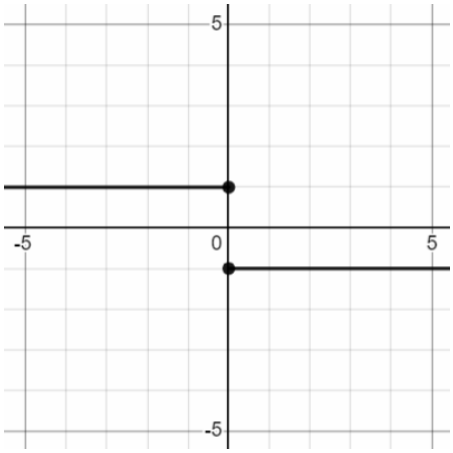
18. Is the following graph a function?



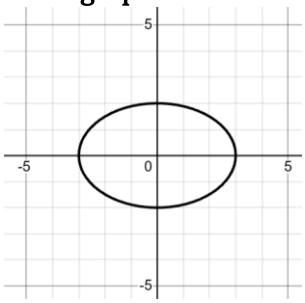
19. Is the following graph a function?



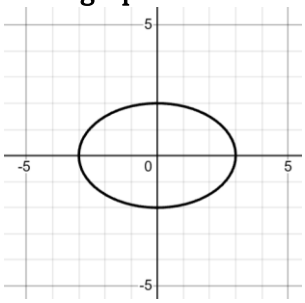
20. Is the following graph a function?



21. Is the graph below a function?



22. Is the graph below a relation?



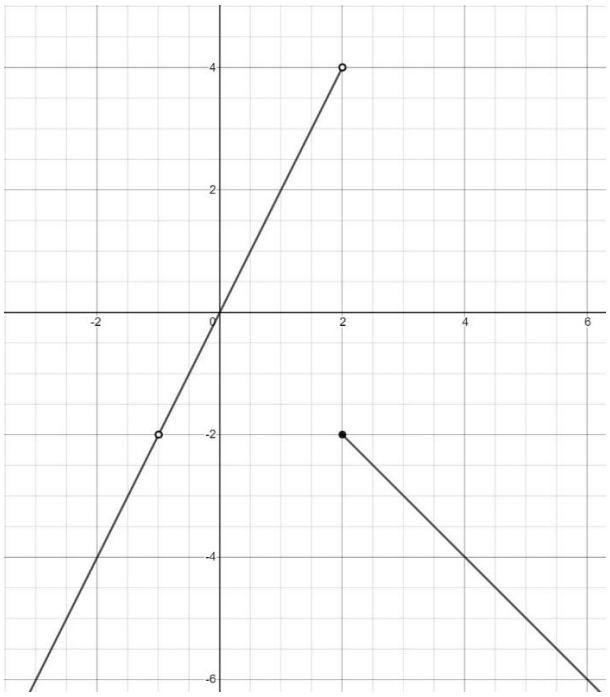
23. $f(x) = x^2 - 2x$**. Evaluate** $f(-3)$**.**

24. $f(x) = 3x^3 - \frac{2^x}{5x}$**. Evaluate** $f(-1)$**.**

25. $f(x) = 2x^2 + 3x + 1$. $g(x) = x - 3$. Evaluate $f(x) + g(x)$.

26. $f(x) = 2x + 3, x \in [0, 3]$ and $x \in \mathbb{Z}$.
True or False: The range of this function given the domain constraints is $y \in \{3, 4, 5, 6, 7, 8, 9\}$.

27. Find the domain of the two-part function $f(x)$ below:



28. Find the range of the two-part function $f(x)$ above.