

Domain and Range Worksheet

Find the Domain and Range of each of the following.

1. $y = 2x - 3$

$x \in \mathbb{R}$

$y \in \mathbb{R}$

2. $y = \sqrt{x+1}$

$x \geq -1$

$y \geq 0$

3. $y = (x+4)^2$

$x \in \mathbb{R}$

$y \geq 0$

4. $y = \frac{1}{x-6}$

$x \neq 6$

$y \neq 0$

5. $y = 2$

$x \in \mathbb{R}$

$y = 2$

6. $y = \frac{5}{x+2}$

$x \neq -2$

$y \neq 0$

7. $y = (x-2)(x+1)$

$x \in \mathbb{R}$

$y \geq -2.25$

8. $x = y^2 + 1$

$\pm \sqrt{x-1} = y$

$x \geq 1$

$y \in \mathbb{R}$

9. $x^2 + y^2 = 25$

$-5 \leq x \leq 5$

$-5 \leq y \leq 5$

10. $y = x^2 - 3$

$x \in \mathbb{R}$

$y \geq -3$

11. $y = 2x^2 + 7$

$x \in \mathbb{R}$

$y \geq 7$

12. $y = \frac{1}{x^2 - 1}$

$y = \frac{1}{(x-1)(x+1)}$

$x \neq -1, 1$

$y \neq 0$

13. $y = \frac{x+3}{x}$

$= 1 + \frac{3}{x}$

$x \neq 0$

$y \neq 1$

14. $y = \sqrt{x-3}$

$x \geq 3$

$y \geq 0$

15. $y = \sqrt{4-x}$

$x \leq 4$

$y \geq 0$

16. $y = \sqrt{6x-1}$

$x \geq \frac{1}{6}$

$y \geq 0$

17. $y = -2(x-3)^2 + 4$

$x \in \mathbb{R}$

$y \leq 4$

18. $y = 4(x+2)^2 - 3$

$x \in \mathbb{R}$

$y \geq -3$