

# Math 1513 - College Algebra

## Discussion Board Week 3 - Due 2020.02.02

---

Determine the implied domain and corresponding range for each of the following functions.

$$1. y = \frac{2x - 1}{(3x + 5)(4x - 7)}$$

$$2. y = \frac{(3x + 5)(4x - 7)}{2x - 1}$$

$$3. y = \sqrt{x^2 + 4}$$

$$4. y = \sqrt{x^2 - 4}$$

$$5. y = \frac{5}{x^2 + 4}$$

$$6. y = -\frac{6}{x^2 + 4}$$

$$7. y = \frac{7}{x^2 - 4}$$

$$8. y = -\frac{8}{x^2 + 4}$$

$$9. y = \sqrt{(5x + 3)(4x - 7)}$$

$$10. y = \sqrt{(5x - 3)(4x + 7)}$$

$$11. y = \frac{x^2 + 1}{\sqrt{3x + 4}}$$

$$12. y = \frac{\sqrt{3x + 4}}{x^2 + 1}$$

$$13. y = \sqrt{\frac{3x + 1}{4x - 2}}$$

$$14. y = \sqrt{\frac{4x - 2}{3x + 1}}$$

$$15. y = \sqrt{x^2 + 9} - 3$$

$$16. y = \sqrt{x^2 - 9} + 4$$

$$17. y = 4\sqrt{x^2 - 1} + 3$$

$$18. y = \frac{7}{\sqrt{x - 4}}$$

$$19. y = -\frac{8}{\sqrt{x + 4}}$$

$$20. y = \frac{3}{|2x + 1|}$$

$$21. y = -\frac{4}{|3x - 4|}$$

$$22. y = \left| \frac{3}{5x - 2} \right| + 4$$

$$23. y = \sqrt{|3 - 2x|} - 6$$

$$24. y = \frac{2}{\sqrt{|3 - 2x|}}$$

$$25. y = \frac{3x + 7}{(5 - 3x)(6 - 9x)}$$