

Advanced Functions

Rational

Rational Vertical Asymptotes

1. *vertical asymptotes* $\frac{1}{x}$

2. *vertical asymptotes* $\frac{1}{x^2}$

3. *vertical asymptotes* $\frac{x}{x+1}$

4. *vertical asymptotes* $\frac{1}{1+x^2}$

5. *vertical asymptotes* $\frac{2}{x}$

6. *vertical asymptotes* $\frac{3}{x^2}$

7. *vertical asymptotes* $\frac{1}{x^3}$

8. *vertical asymptotes* $\frac{x+2}{x-1}$

9. *vertical asymptotes* $\frac{x^2}{x^2+1}$

10. *vertical asymptotes* $\frac{1}{x-3}$

Answers

Advanced Functions

Rational

Rational Vertical Asymptotes

1. $x = 0$

2. $x = 0$

3. $x = -1$

4. No vertical asymptotes

5. $x = 0$

6. $x = 0$

7. $x = 0$

8. $x = 1$

9. No vertical asymptotes

10. $x = 3$