

## Advanced Functions

## Rational

## Rational Horizontal Asymptotes

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

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

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

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

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

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

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

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

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

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

**Answers**

**Advanced Functions**

**Rational**

**Rational Horizontal Asymptotes**

1.  $y = 0$

2.  $y = 0$

3.  $y = 1$

4.  $y = 0$

5.  $y = 0$

6.  $y = 0$

7.  $y = 0$

8.  $y = 1$

9.  $y = 1$

10.  $y = 0$