

## Advanced Functions

## Rational

## Rational Domain

1.  $\text{domain } \frac{1}{x}$

2.  $\text{domain } \frac{1}{x^2}$

3.  $\text{domain } \frac{x}{x+1}$

4.  $\text{domain } \frac{1}{1+x^2}$

5.  $\text{domain } \frac{2}{x}$

6.  $\text{domain } \frac{3}{x^2}$

7.  $\text{domain } \frac{1}{x^3}$

8.  $\text{domain } \frac{x+2}{x-1}$

9.  $\text{domain } \frac{x^2}{x^2+1}$

10.  $\text{domain } \frac{1}{x-3}$

## Answers

### Advanced Functions

#### Rational

##### Rational Domain

1.  $x < 0$  or  $x > 0$

2.  $x < 0$  or  $x > 0$

3.  $x < -1$  or  $x > -1$

4.  $-\infty < x < \infty$

5.  $x < 0$  or  $x > 0$

6.  $x < 0$  or  $x > 0$

7.  $x < 0$  or  $x > 0$

8.  $x < 1$  or  $x > 1$

9.  $-\infty < x < \infty$

10.  $x < 3$  or  $x > 3$