

Advanced Functions

Rational

Rational Range

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

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

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

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

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

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

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

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

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

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

Answers**Advanced Functions****Rational****Rational Range**

1. $f(x) < 0$ or $f(x) > 0$

2. $f(x) > 0$

3. $f(x) < 1$ or $f(x) > 1$

4. $0 < f(x) \leq 1$

5. $f(x) < 0$ or $f(x) > 0$

6. $f(x) > 0$

7. $f(x) < 0$ or $f(x) > 0$

8. $f(x) < 1$ or $f(x) > 1$

9. $0 \leq f(x) < 1$

10. $f(x) < 0$ or $f(x) > 0$