

Domain & Range

Date _____ Period _____

For each function, identify the domain.

1) $f(x) = \frac{x-2}{-x^2+x+2}$

2) $f(x) = \frac{x-4}{x-1}$

3) $f(x) = \frac{1}{-3x-12}$

4) $f(x) = -\frac{3}{x^2-3x}$

5) $f(x) = \frac{x^2+3x}{4x-8}$

6) $f(x) = \frac{3x^2+6x-24}{x^2-9}$

7) $f(x) = \frac{x^2+2x}{-3x^2-3x+18}$

8) $f(x) = \frac{x^3-3x^2-4x}{-3x^2+18x-24}$

Identify the domain and range of each.

9) $y = \sqrt{x+3} + 1$

10) $y = 5 + \frac{2}{3}\sqrt{x+4}$

11) $y = \frac{1}{2}\sqrt{x+6} + 2$

12) $y = 4 + \sqrt{x+2}$

13) $y = -5 + \sqrt{x-1}$

14) $y = \sqrt{x-2} + 1$

Determine the Domain and Range of each function.

15) $y = -(x-2)^2 + 2$

16) $y = -(x-3)^2 + 2$

17) $y = -(x-3)^2 - 2$

18) $y = -(x+4)^2 - 3$

19) $y = -2(x-2)^2 + 3$

20) $y = -(x+1)^2 + 4$

Domain & Range

For each function, identify the domain.

1) $f(x) = \frac{x-2}{-x^2+x+2}$

Domain: All reals except -1, 2

2) $f(x) = \frac{x-4}{x-1}$

Domain: All reals except 1

3) $f(x) = \frac{1}{-3x-12}$

Domain: All reals except -4

4) $f(x) = -\frac{3}{x^2-3x}$

Domain: All reals except 0, 3

5) $f(x) = \frac{x^2+3x}{4x-8}$

Domain: All reals except 2

6) $f(x) = \frac{3x^2+6x-24}{x^2-9}$

Domain: All reals except -3, 3

7) $f(x) = \frac{x^2+2x}{-3x^2-3x+18}$

Domain: All reals except -3, 2

8) $f(x) = \frac{x^3-3x^2-4x}{-3x^2+18x-24}$

Domain: All reals except 2, 4

Identify the domain and range of each.

9) $y = \sqrt{x+3} + 1$

Domain: $x \geq -3$

Range: $y \geq 1$

10) $y = 5 + \frac{2}{3}\sqrt{x+4}$

Domain: $x \geq -4$

Range: $y \geq 5$

11) $y = \frac{1}{2}\sqrt{x+6} + 2$

Domain: $x \geq -6$

Range: $y \geq 2$

12) $y = 4 + \sqrt{x+2}$

Domain: $x \geq -2$

Range: $y \geq 4$

13) $y = -5 + \sqrt{x-1}$

Domain: $x \geq 1$

Range: $y \geq -5$

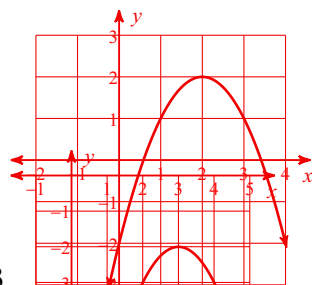
14) $y = \sqrt{x-2} + 1$

Domain: $x \geq 2$

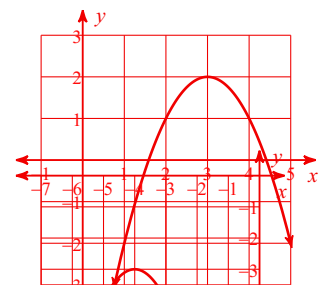
Range: $y \geq 1$

Determine the Domain and Range of each function.

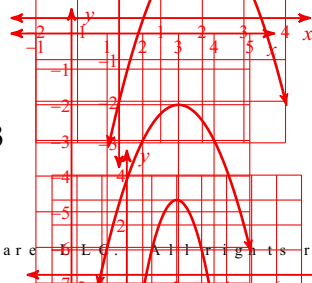
15) $y = -(x-2)^2 + 2$



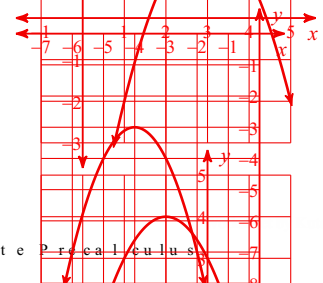
16) $y = -(x-3)^2 + 2$



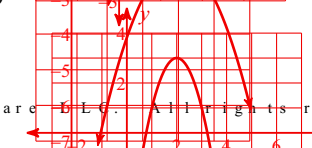
17) $y = -(x-3)^2 - 2$



18) $y = -(x+4)^2 - 3$



19) $y = -2(x-2)^2 + 3$



20) $y = -(x+1)^2 + 4$

