

Objective: Students will be able to find the domain of a function algebraically and graphically. Students will find the range of a function graphically. Students will attend to precision when writing solutions using proper notation.

Finding the Domain

Algebraically:

1) When is the denominator 0?

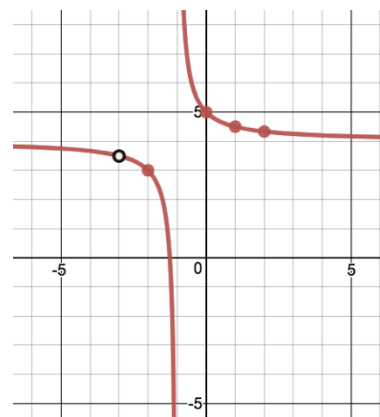
$$f(x) = \frac{5}{x-12}$$

2) When is the value under a square root negative?

$$g(x) = \sqrt{x+4}$$

Graphically:

What are the boundaries for the x-values in the graph? Are there holes (open circles) or asymptotes in the graph?



Find the domain of the following functions.

a) $h(x) = \sqrt{x+8}$

b) $f(x) = \frac{5x}{x^2-9x+20}$

c) $g(x) = \frac{(x+5)}{(x+5)(x-3)}$

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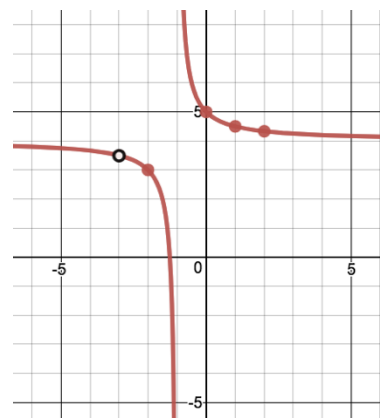
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