

Taking a Closer Look!

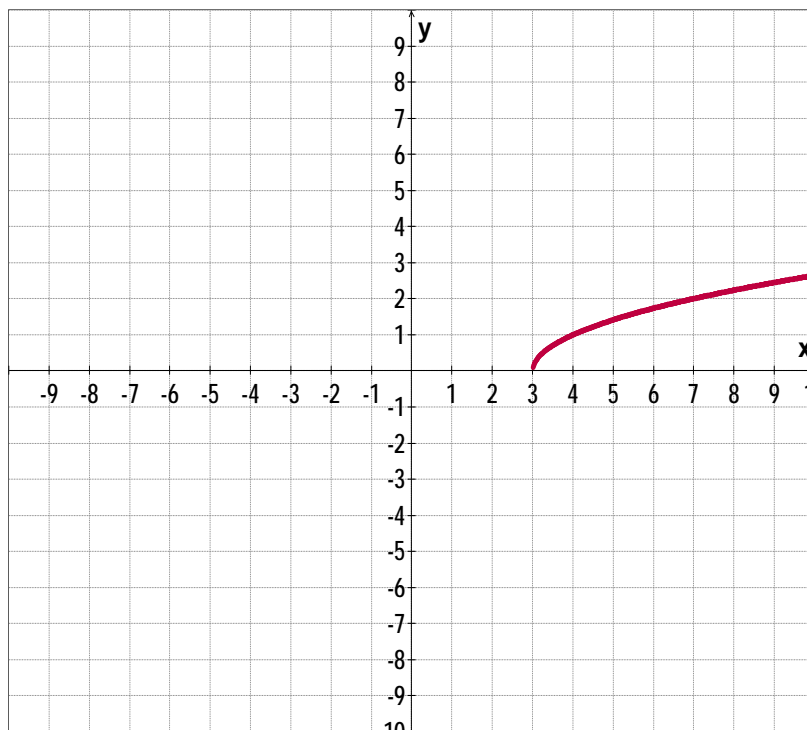
Name ANSWERS

Directions: Give answers in interval notation when possible. If a concept does not apply, write "none"



Graph:

$$y = \sqrt{x - 3}$$



1. Is it a function? **YES**
2. Domain: **$[3, \infty)$**
3. Range: **$[0, \infty)$**
4. x-intercept(s): **$x = 3$**
5. y-intercept(s): **none**
6. Symmetry: **none**
7. Where is the graph increasing?
 $[3, \infty)$
8. Where is the graph decreasing?
never
9. Where is $y < 0$? **Not**
10. Where is $y > 0$? **$(3, \infty)$**
11. Where is $y = 0$? **$x = 3$**
12. Find y when $x = 7$. **2**
13. For what x-value(s) is $y = 4$? **$x = 19$**
14. Absolute maximum value of graph:
none - approaches $+\infty$
15. Absolute minimum value of graph:
 $y = 0$
16. Relative maxima: **none**
17. Relative minima: **0**
18. Asymptote(s): (state equation(s))
none
19. Assuming $y = f(x)$:
as $x \rightarrow +\infty$, $f(x) \rightarrow$ **$+\infty$**
as $x \rightarrow -\infty$, $f(x) \rightarrow$ **no answer**
Graph starts at $x = 3$ and moves right.
20. Name given to this graph:
Square Root