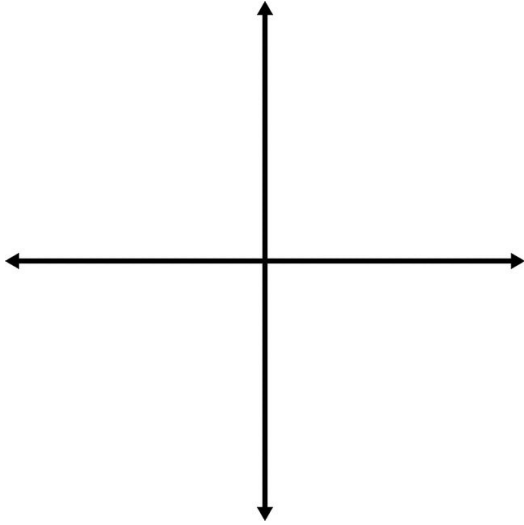


Square Root Function:



Parent function:

Domain:

Range:

Intercepts:

Not defined:

End behavior:

1. Identify the domain and range of the following:

a. $y = \sqrt{x+4}$

b. $y = \sqrt{x} - 2$

c. $y = \sqrt{x+3} - 1$

 **KeyConcept** Transformations of Square Root Functions

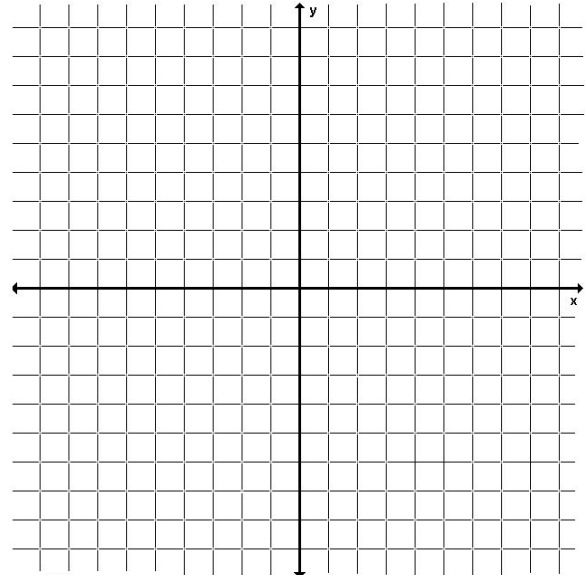
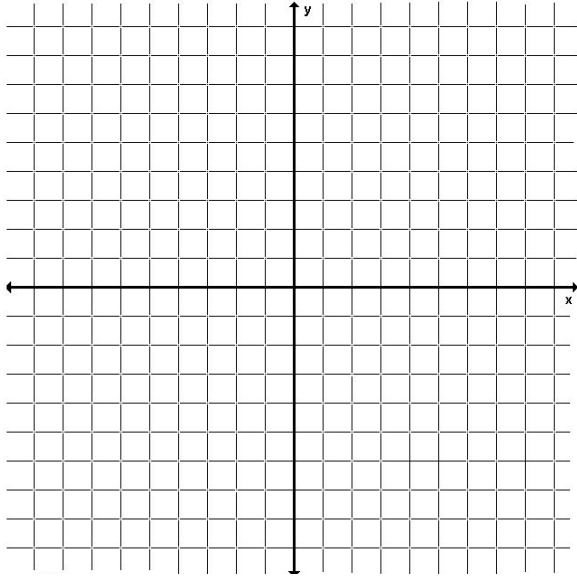
$$f(x) = a\sqrt{x-h} + k$$

6.3 Square Root Functions and Inequalities
Honors Algebra 2

2. Graph each function. State the domain and range.

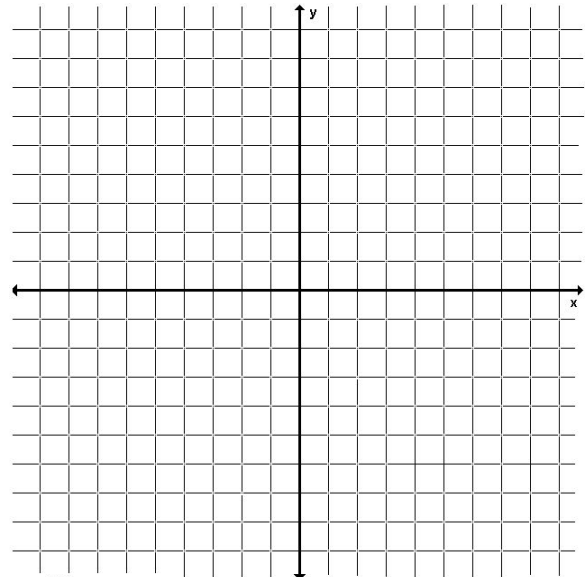
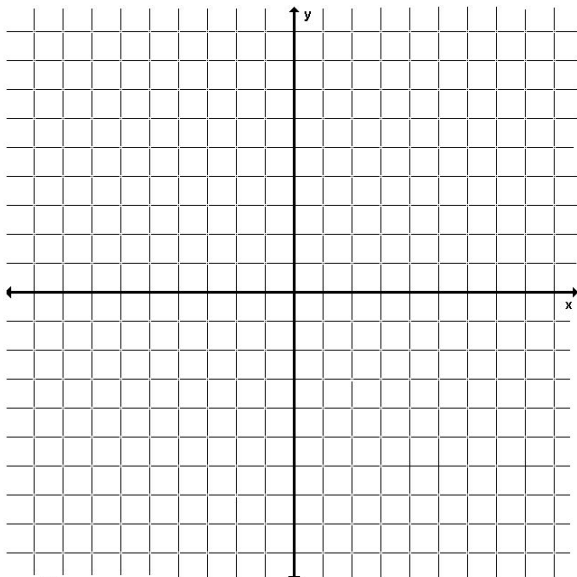
a. $y = \sqrt{x-2} + 5$

c. $y = 2\sqrt{x} + 4$



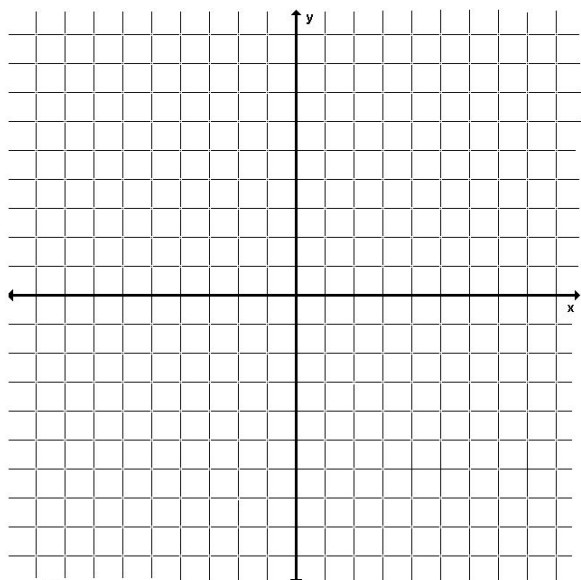
b. $y = \sqrt{x+3} - 1$

d. $y = -\sqrt{x-5}$



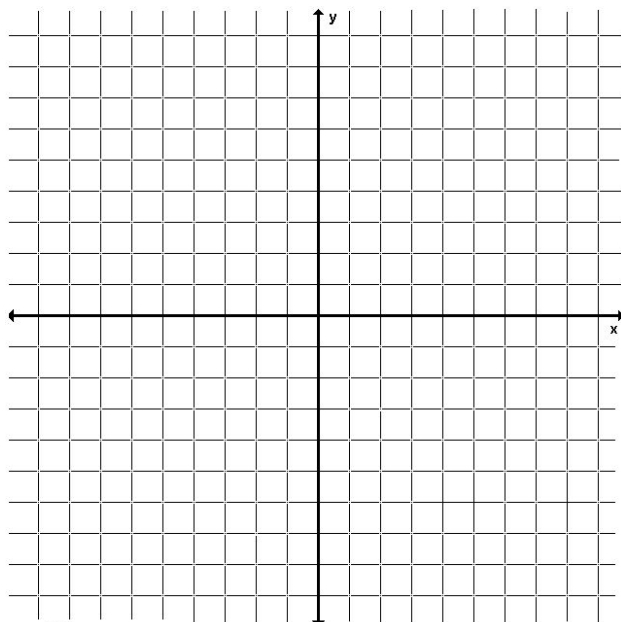
6.3 Square Root Functions and Inequalities
Honors Algebra 2

e. $y = \frac{1}{4}\sqrt{x+5} - 3$



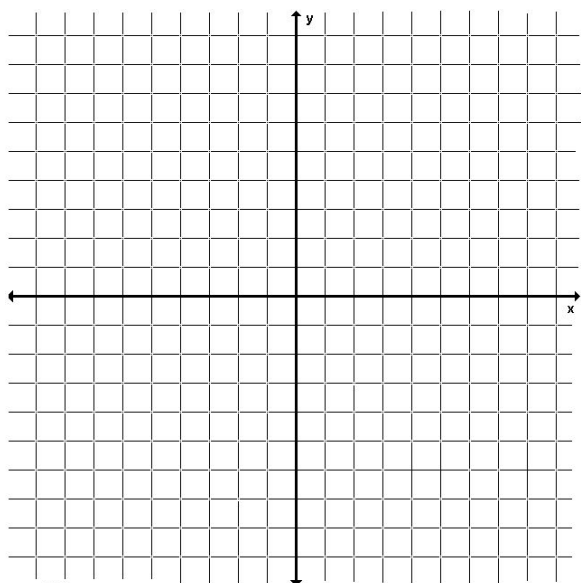
3. Graph each inequality:

a. $y < \sqrt{x+4} - 6$



6.3 Square Root Functions and Inequalities
Honors Algebra 2

b. $f(x) \geq \sqrt{x+1}$



c. $f(x) \leq -\sqrt{x+2} - 4$

