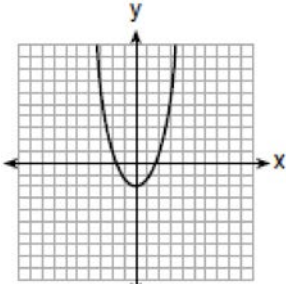
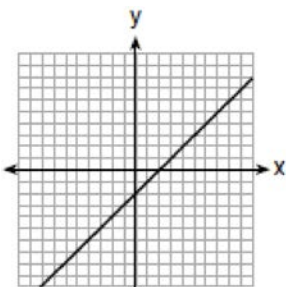


F.IF.C.7: Graphing Root Functions

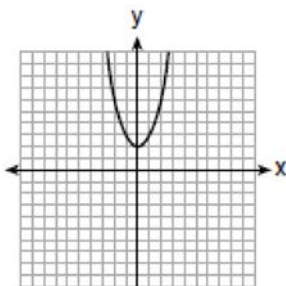
1 Which graph represents $y = \sqrt{x-2}$?



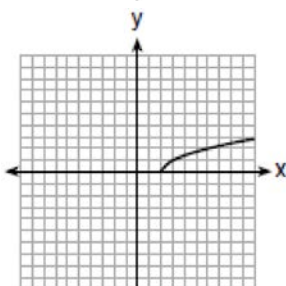
1)



2)

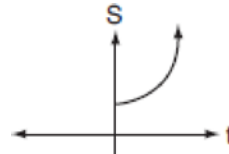


3)

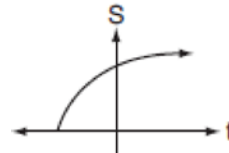


4)

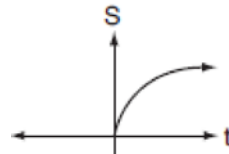
2 The formula $S = 20\sqrt{t+273}$ is used to determine the speed of sound, S , in meters per second, near Earth's surface, where t is the surface temperature, in degrees Celsius. Which graph best represents this function?



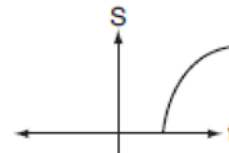
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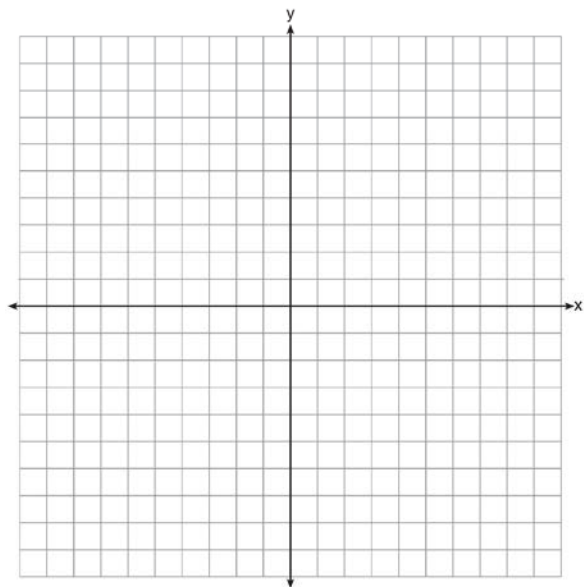


3)

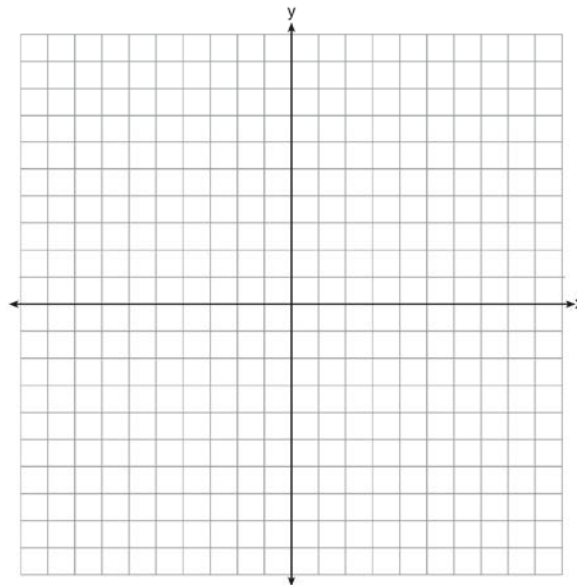


4)

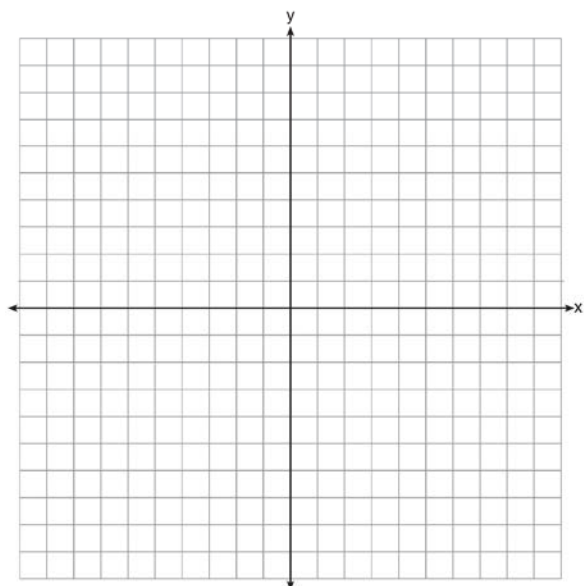
- 3 Draw the graph of $y = \sqrt{x} - 1$ on the set of axes below.



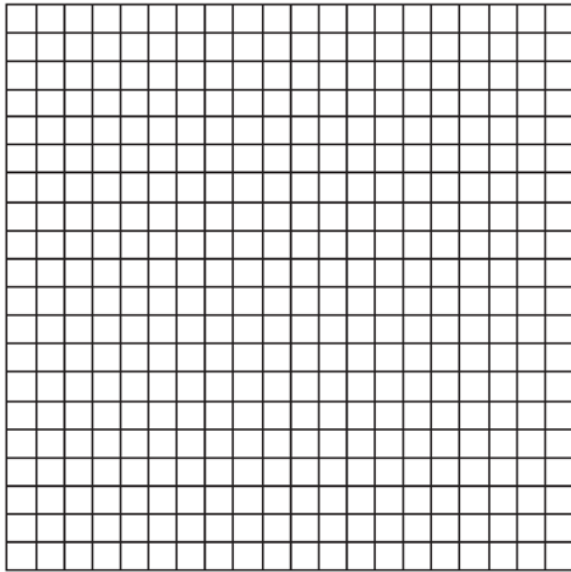
- 5 On the set of axes below, graph the function represented by $y = \sqrt[3]{x-2}$ for the domain $-6 \leq x \leq 10$.



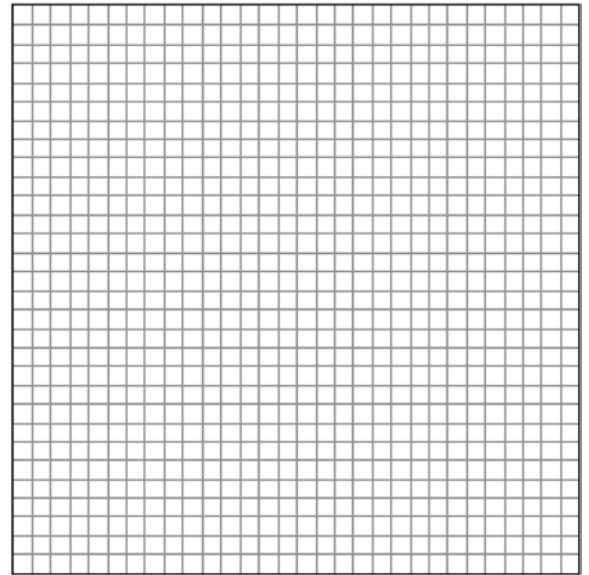
- 4 Graph the function $y = -\sqrt{x+3}$ on the set of axes below.



- 6 The equation $V = 20\sqrt{C + 273}$ relates speed of sound, V , in meters per second, to air temperature, C , in degrees Celsius. What is the temperature, in degrees Celsius, when the speed of sound is 320 meters per second? [The use of the accompanying grid is optional.]



- 7 The number of people, y , involved in recycling in a community is modeled by the function $y = 90\sqrt{3x + 400}$, where x is the number of months the recycling plant has been open. Construct a table of values, sketch the function on the grid, and find the number of people involved in recycling exactly 3 months after the plant opened. After how many months will 940 people be involved in recycling?

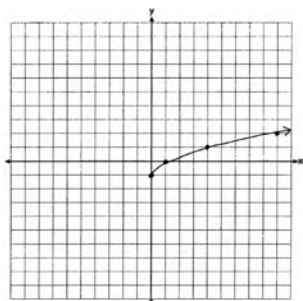


**F.IF.C.7: Graphing Root Functions
Answer Section**

1 ANS: 4 REF: 061703ai

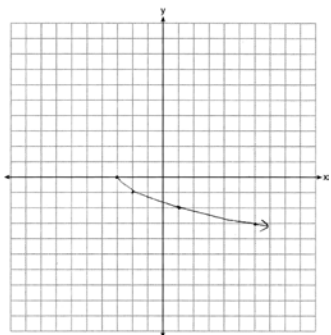
2 ANS: 2 REF: 060718b

3 ANS:



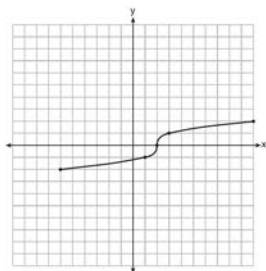
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4 ANS:



REF: 081625ai

5 ANS:



REF: fall1304ai

