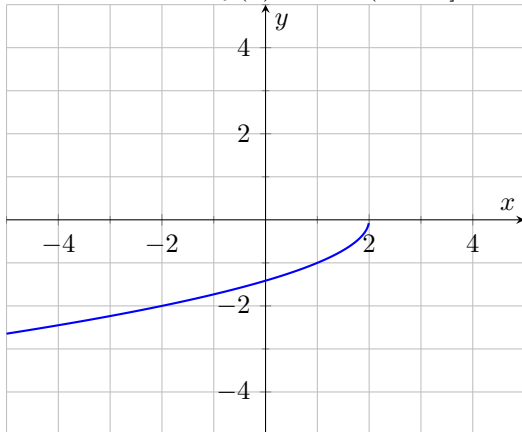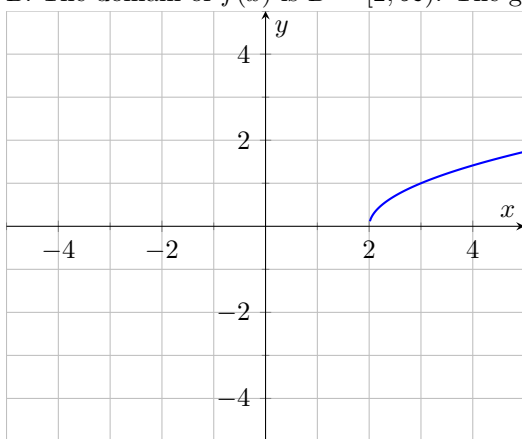1. Given $f(x) = \sqrt{x - 2}$, complete the table below, sketch a graph of $f(x)$, and determine the domain D of $f(x)$.

x	$f(x)$
2	
3	
6	
11	

A. The domain of $f(x)$ is $D = (-\infty, 2]$. The graph of $f(x)$ is given below:
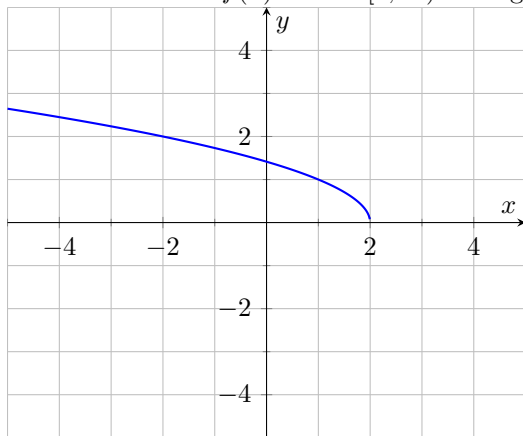

B. The domain of $f(x)$ is $D = [2, \infty)$. The graph of $f(x)$ is given below:
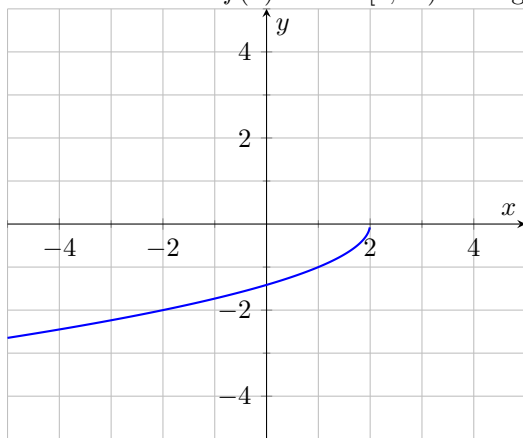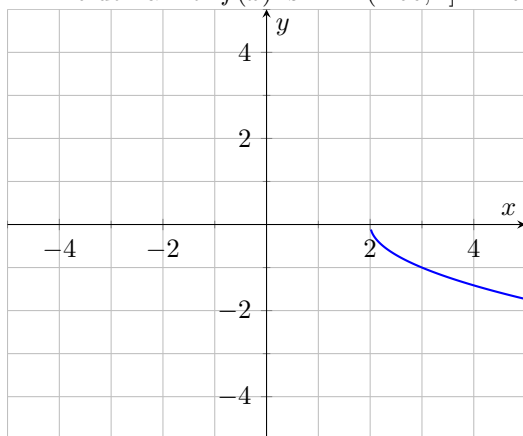

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C. The domain of $f(x)$ is $D = [2, \infty)$. The graph of $f(x)$ is given below:

D. The domain of $f(x)$ is $D = [2, \infty)$. The graph of $f(x)$ is given below:
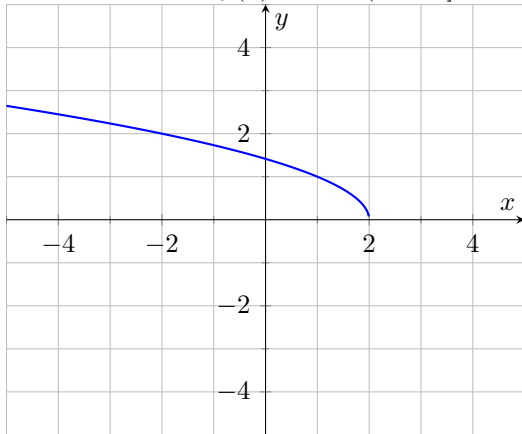

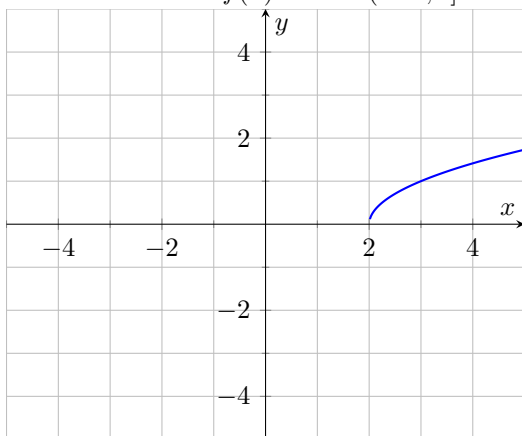E. The domain of $f(x)$ is $D = (-\infty, 2]$. The graph of $f(x)$ is given below:

MORE OPTIONS ON NEXT PAGE...

F. The domain of $f(x)$ is $D = (-\infty, 2]$. The graph of $f(x)$ is given below:
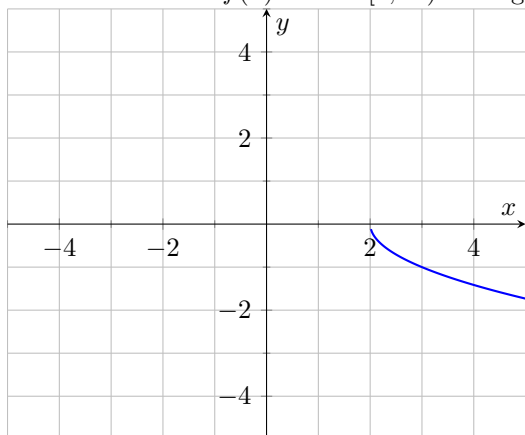

G. The domain of $f(x)$ is $D = (-\infty, 2]$. The graph of $f(x)$ is given below:

MORE OPTIONS ON NEXT PAGE...

H. The domain of $f(x)$ is $D = [2, \infty)$. The graph of $f(x)$ is given below:

2. Evaluate the radical expression.

$$-\sqrt[3]{0}$$

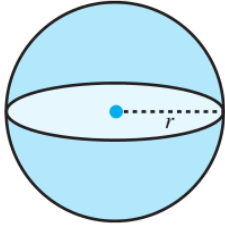A. Not a real number.

B. 0

C. 4

D. -2

E. -7

F. 7

G. -9

H. -3

3. Use the formula $r = \sqrt[3]{\frac{3V}{4\pi}}$ to determine to the nearest tenth of a centimeter the radius of a spherical container with volume $V = 385$ cm^3.

A. The radius of the container is 4.7 cm.

B. The radius of the container is 4.1 cm.

C. The radius of the container is 4.6 cm.

D. The radius of the container is 5 cm.

E. The radius of the container is 4.4 cm.

F. The radius of the container is 4.2 cm.

G. The radius of the container is 4 cm.

H. The radius of the container is 4.5 cm.

4. Algebraically determine the domain D of the function $f(x)$.

$$f(x) = 2x^2 - 7$$

A. $D = \mathbb{R}\backslash\{\sqrt{\frac{7}{2}}\}$

B. $D = \emptyset$

C. $D = [\sqrt{\frac{7}{2}}, \infty)$

D. $D = [\frac{2}{7}, \infty)$

E. $D = (-\infty, \frac{2}{7}]$

F. $D = (-\infty, \sqrt{\frac{7}{2}}]$

G. $D = \mathbb{R}$

H. $D = \mathbb{R}\backslash\{\frac{2}{7}\}$

5. Algebraically determine the domain D of the function $f(x)$.

$$f(x) = 6x - 4$$

A. $D = (-\infty, \frac{3}{2}]$

B. $D = \mathbb{R}$

C. $D = (-\infty, \frac{2}{3}]$

D. $D = \mathbb{R}\setminus\{\frac{3}{2}\}$

E. $D = [\frac{2}{3}, \infty)$

F. $D = \mathbb{R}\setminus\{\frac{2}{3}\}$

G. $D = \emptyset$

H. $D = [\frac{3}{2}, \infty)$

6. Evaluate the radical expression.

$$\sqrt{25}$$

A. 11

B. -3

C. 4

D. 5

E. 8

F. 0

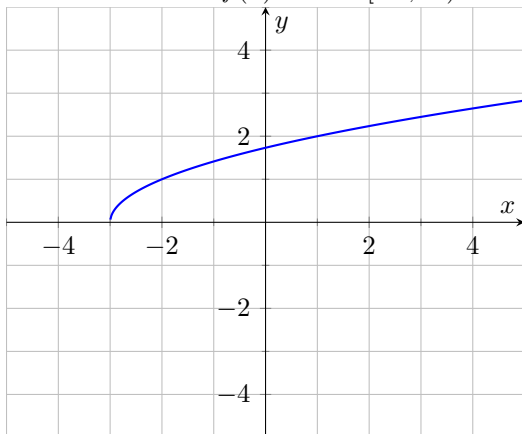G. 9

H. 10

7. Evaluate the radical expression.

$$\sqrt[3]{-216} + \sqrt[3]{27} + \sqrt[3]{216}$$

A. 1

B. -6

C. 3

D. 9

E. 12

F. -1

G. 8

H. 10

8. Given $f(x) = \sqrt{3 - x}$, complete the table below, sketch a graph of $f(x)$, and determine the domain D of $f(x)$.
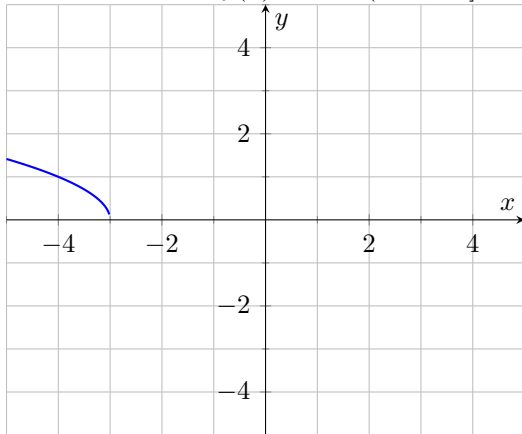
x	$f(x)$
-6	
-1	
2	
3	

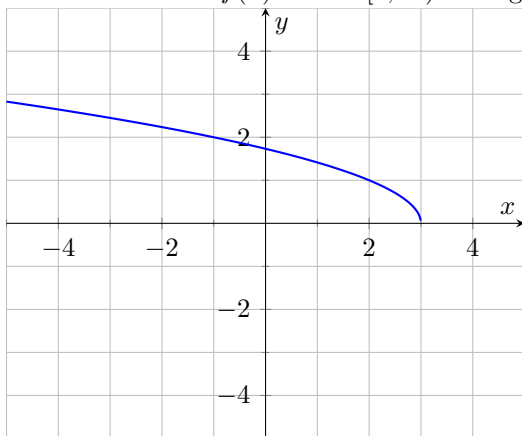A. The domain of $f(x)$ is $D = [-3, \infty)$. The graph of $f(x)$ is given below:

MORE OPTIONS ON NEXT PAGE...

B. The domain of $f(x)$ is $D = (-\infty, -3]$. The graph of $f(x)$ is given below:
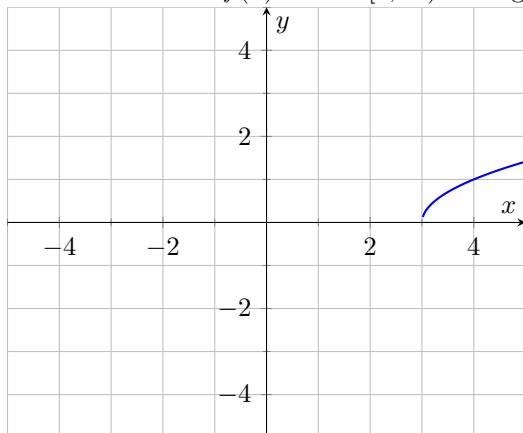
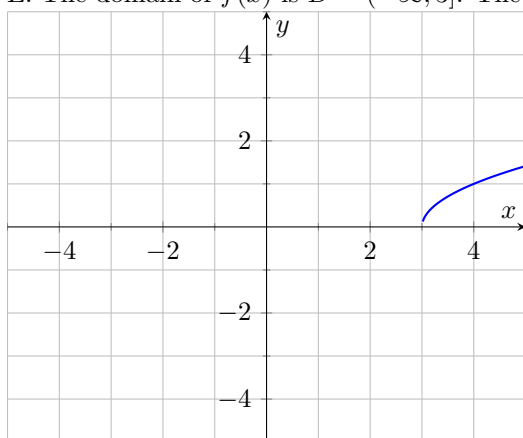C. The domain of $f(x)$ is $D = [3, \infty)$. The graph of $f(x)$ is given below:
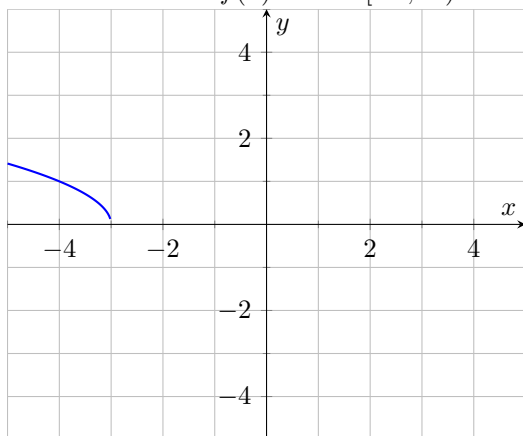
MORE OPTIONS ON NEXT PAGE...

D. The domain of $f(x)$ is $D = [3, \infty)$. The graph of $f(x)$ is given below:

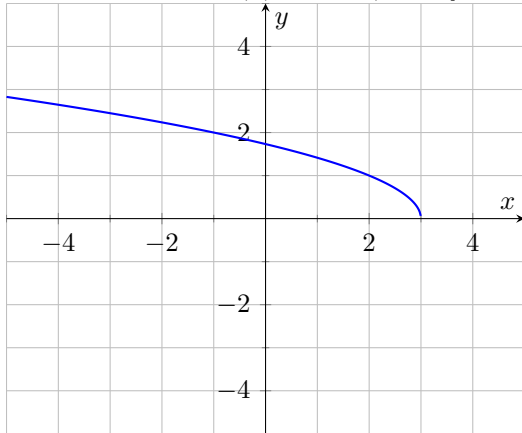E. The domain of $f(x)$ is $D = (-\infty, 3]$. The graph of $f(x)$ is given below:

F. The domain of $f(x)$ is $D = [-3, \infty)$. The graph of $f(x)$ is given below:

MORE OPTIONS ON NEXT PAGE...

G. The domain of $f(x)$ is $D = (-\infty, 3]$. The graph of $f(x)$ is given below:

H. The domain of $f(x)$ is $D = (-\infty, -3]$. The graph of $f(x)$ is given below: