In the figure, what is the value of $x$ ?

15


- 14
8.57.5


# State if the number is rational, irrational or not a real number 



Solve for $b: \quad 3 b^{3}=81$
() $b=9$
$b=6.2$
$b=3$
$b=1.4$

Molly wants to put a fence around an area. The fence will follow the diagram of the triangle shown below.


Rectangle WXYZ will be dilated by a scale factor of 2, creating $W^{\prime} Y^{\prime} X^{\prime} Z^{\prime}$.


4 units

6 units

12 units

24 units

What will the perimeter of $W^{\prime} X^{\prime} Y^{\prime} Z^{\prime}$ be?

A cylinder-shaped container is used to store water. The container has a height of 6 feet and a diameter of 3 feet. About how much water is in the container when it is $1 / 4$ full?

Which function is nonlinear?

$$
y=\frac{1}{2} x-7
$$

$y=2 x(x-4)$
$y=-x$

$$
y=\frac{3 x+1}{2}
$$

A corporation earned a profit of $\$ 2.5 \times 10^{4}$ for $1 \times 10^{3}$ days in a row. What was the corporation's total profit during this time period?

Josh is 8 years younger than twice Ella's age. Josh is 18 years old. How old is Ella?

8

10

13

- 18


# Tom is filling a spherical beach ball <br> - $33 \mathrm{in}^{3}$ with air for the pool party. The ball has a radius of 8 inches. What is the approximate amount of air the ball will hold? <br> - 1,608 $\mathrm{in}^{3}$ 

- $2,144 i n^{3}$

A total of 24 students are in Allison's class. The number of girls in the class is 3 more than twice the number of boys. How many girls are there in her class?

- 9
- 15
- 7
- 17

Alice compared the graphs of two functions.

- The first function was $\mathrm{y}=3 \mathrm{x}+4$.
- The second function fits the values in the table shown.

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
| 2 | 17 |
| 5 | 32 |
| 8 | 47 |
| 11 | 62 |

2

3

4

What is the distance between the $y$-intercepts of the two functions?

The relation shown is not a function.


Which point should be removed to make the relation a function?

Quadrilateral PQRS is graphed in the coordinate plane. If the quadrilateral is reflected across the $x$-axis, what will be the new coordinates of $P$ '?

$(2,8)$
$(2,-8)$
$(-2,8)$
$(-2,-8)$

What is the solution to $\frac{5 \times 10^{3}}{2.5 \times 10^{-4}}$ ?
$1.25 \times 10^{-1}$

- $1.25 \times 10^{7}$
- $2 x 10^{7}$
$2 \times 10^{-1}$

What is the solution to the system of equations shown in the graph below?

A $(-6,1)$


B $(-2,4)$
C $(1,-6)$

D $\quad(-4,-8)$

A system of equations is shown below.
$2 x+4 y=0$
$y=\frac{1}{2} x-3$
What is the value of x ?

- -3
- 1.5
- 1.5
- 3

