

acadiance[™]math

Concepts and Applications Grade 6 | Benchmark Assessment

Student Worksheets

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These are photocopy masters for student worksheets. Make one copy for each student who will be tested.

Acadience™ Math / Concepts and Applications
Grade 6 / Benchmark 1

Total: _____

1. At the aquarium there were 24 zebra fish and 61 clown fish. What is the ratio of zebra fish to clown fish? _____

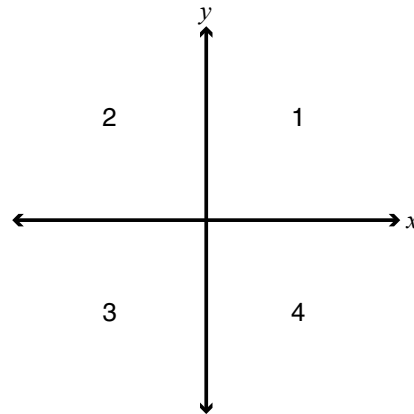
2. Doug delivers papers to houses on the weekends. The following are the number of papers that Doug delivered: **5, 2, 9, 9, 5**.

A. What is the mean number of papers that Doug delivered? _____

B. What is the median number of papers that Doug delivered? _____

3. Fill in the missing quadrants to complete the table:

Point	Quadrant
$(-5, 7)$	
$(-5, -5)$	
$(4, -7)$	4
$(1, 7)$	



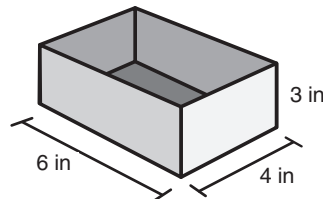
4. A. Write an expression for **8 subtracted from x** : _____

B. Write an expression for **5 added to x** : _____

5. Roy has a box and a bag of blocks that are $\frac{1}{2}$ inch by $\frac{1}{2}$ inch by $\frac{1}{2}$ inch.

A. What is the volume of the box? _____ in^3 .

B. How many blocks will fit inside Roy's box?
_____ blocks.



6. It takes Aunt Jen 2 weeks to make 6 hats. How long will it take Aunt Jen to make 9 hats? _____ weeks.

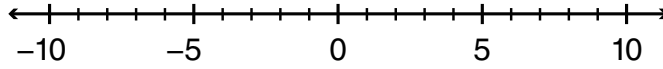
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7. Label the following numbers on the number line below:

a. $-(-3)$

b. -6

c. -2



8. Write “True” if the substitution makes the inequality true or write “False” if the substitution makes the inequality false:

Inequality	$x =$	Write True or False
$14x - 9 < 100$	5	
$27x + 8 < 100$	9	

9. Complete the ratio table:

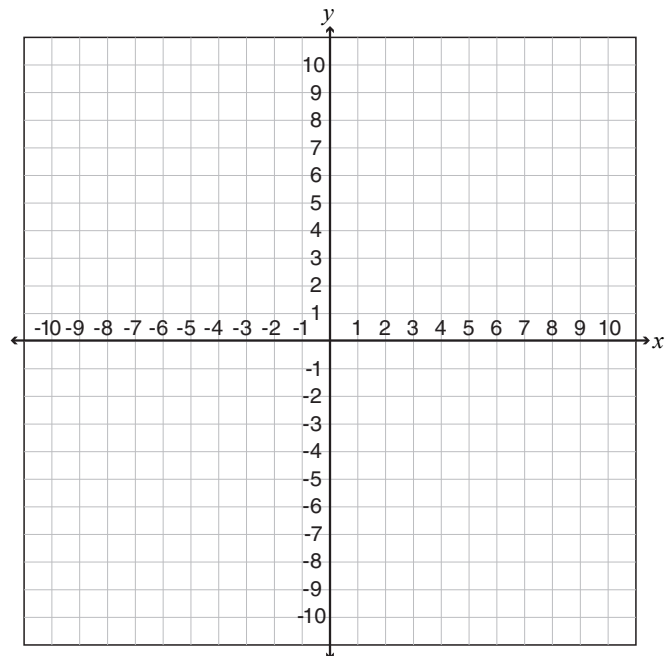
3	15
9	45
12	
	75

10. You are drawing an aerial view of a building.

The corners of the building are located at
 $(9, 2)$, $(9, -6)$, $(-8, -6)$.

A. If the vertices form a rectangle, find the location
of the last vertex: (_____, _____)

B. Plot all the vertices on the graph:



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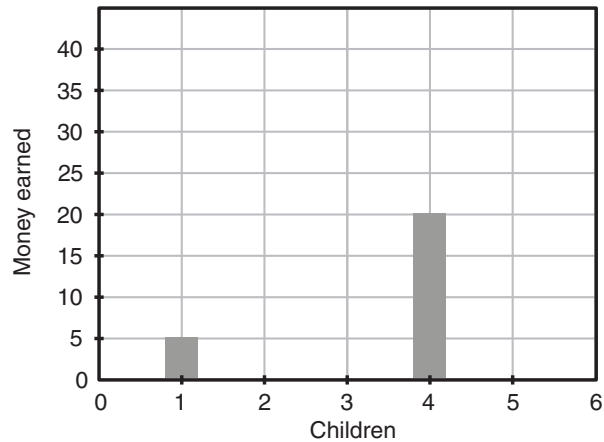
11. Tony gets paid \$5 an hour per child that he babysits.

A. Fill in the table below to determine how much money Tony is paid.

Number of Children	Money Paid per Hour
1	\$5
2	
3	
4	\$20
5	

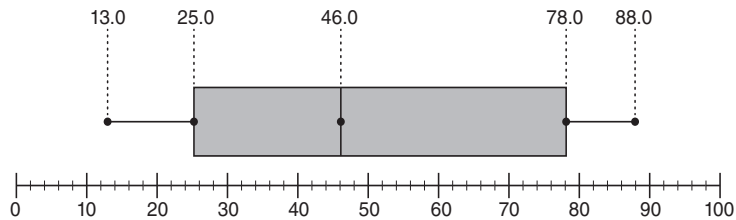
B. Write an equation that illustrates the relationship between the number of children (c) and the money paid per hour (m): _____

C. Make a bar graph for the amount of money earned:



12. You went shopping at the mall and bought 7 shirts for \$49. If all of the shirts cost the same, what is the cost of each shirt?
\$_____ per shirt.

13. Below is the number of books a group of students read over the summer:



What is the range of books read over the summer? _____

What is the median number of books read over the summer? _____

What is the maximum number of books read over the summer? _____

14. Diver A dove to a sea level depth of -28 feet. Diver B dove to -35 feet.

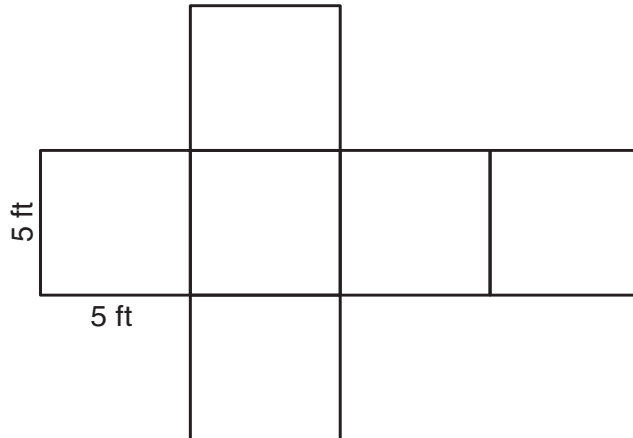
Which diver dove the deepest? _____

Diver A was how many feet under water? _____

15. $4^3 =$ _____

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16. David wanted to figure out the surface area of the tool shed behind his house. What is the surface area of the tool shed? _____ ft^2 .



17. Mateo can run 5 miles in 70 minutes. If he runs at a constant rate of speed, how long would it take him to run 4 miles? _____ minutes.

18. What is the greatest common factor of 54 and 30? _____

19. Our class is playing basketball. Santiago made 6 fewer than 4 times the baskets that Ross made.

Let R = the number of baskets that Ross made.

Write an equation using x that describes how many baskets Santiago made. _____

20. In the mountains it was -3°C . At the coast it was 13°C . Write an inequality to show the relationship between these temperatures:

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Total: _____

1. At the zoo there were 17 lions and 24 monkeys. What is the ratio of lions to monkeys? _____

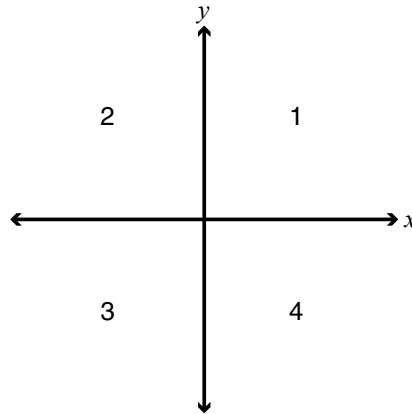
2. Erica has taken several math quizzes since the start of school. The following are her scores: **6, 7, 9, 7, 1**

A. What is the mean of Erica's quiz scores? _____

B. What is the median of Erica's quiz scores? _____

3. Fill in the missing quadrants to complete the table:

Point	Quadrant
(3, 8)	
(-7, -6)	
(3, -7)	4
(-9, 8)	



4. A. Write an expression for **3 subtracted from x** : _____

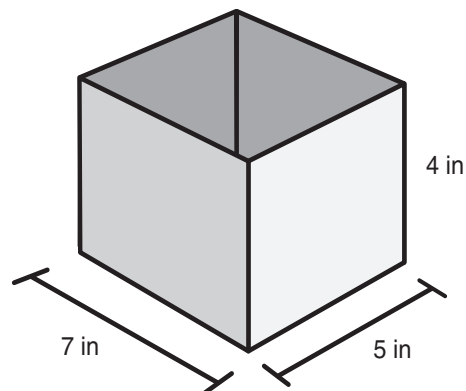
B. Write an expression for **7 added to x** : _____

5. Hannah has a box and a bag of blocks that are $\frac{1}{2}$ inch by $\frac{1}{2}$ inch by $\frac{1}{2}$ inch.

A. What is the volume of the box? _____ in³.

B. How many blocks will fit inside Hannah's box?

_____ blocks.



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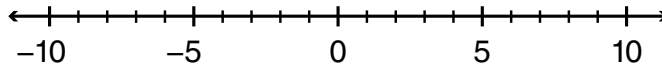
6. It takes Mia 2 weeks to make 4 scarves. How long will it take her to make 6 scarves? _____ weeks.

7. Label the following numbers on the number line below:

a. -3

b. -7

c. $-(-9)$



8. Write “True” if the substitution makes the inequality true or write “False” if the substitution makes the inequality false:

Inequality	$x =$	Write True or False
$44x - 5 < 100$	3	
$26x + 7 < 100$	4	

9. Complete the ratio table:

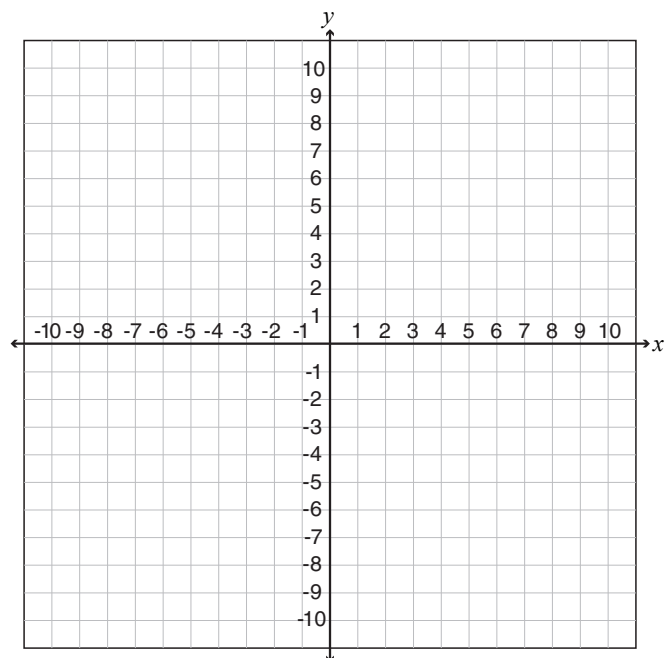
3	9
9	27
12	
	45

10. Dean is plotting the points of ships on a graph.

The ships are located at $(4, 7)$, $(4, -3)$, $(-5, -3)$.

A. If the vertices form a rectangle, find the location of the last vertex: (_____, _____)

B. Plot all the vertices on the graph:



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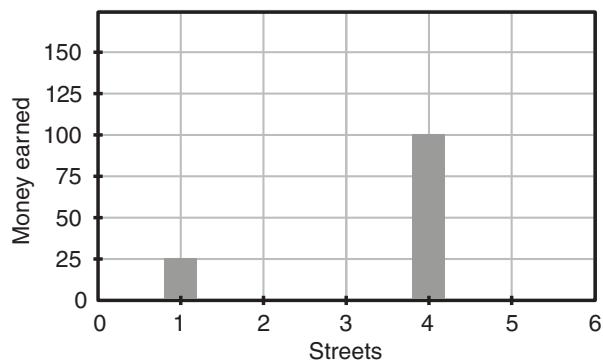
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11. Martin is paid for delivering newspapers on the weekend. He is paid \$25 per street.

A. Fill in the table below to determine how much money Martin is paid.

Number of Streets	Money Paid per Street
1	\$25
2	
3	
4	\$100
5	

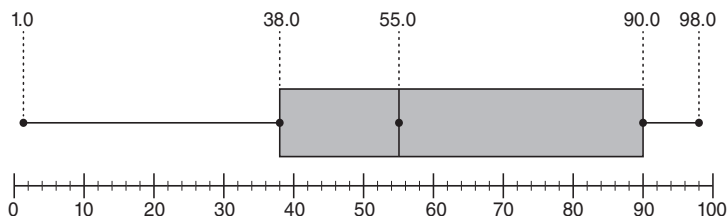
C. Make a bar graph for the amount of money earned:



B. Write an equation that illustrates the relationship between the number of streets (s) and the money paid per hour (m): _____

12. You went to the bookstore and bought 5 books for \$20. If all the books cost the same, what is the cost of each book?
\$_____ per book.

13. Below are the number of minutes students in a class spent on homework:



What is the range of the minutes spent on homework? _____

What is the median number of minutes spent on homework? _____

What is the maximum number of minutes spent on homework? _____

14. Diver A dove to a sea level depth of -20 feet. Diver B dove to -55 feet.

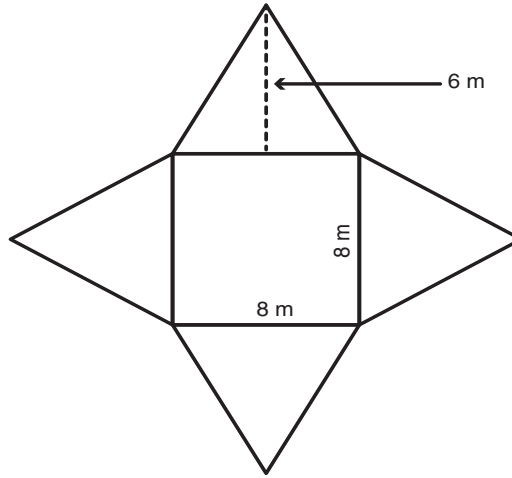
Which diver dove the deepest? _____

Diver A was how many feet under the water? _____

15. $3^3 =$ _____

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16. Tanya wanted to figure out the surface area of a pyramid. What is the surface area of the pyramid?
_____ m^2 .



17. Joe can run 6 miles in 54 minutes. If he runs at a constant rate of speed, how long will it take him to run 8 miles?
_____ minutes.

18. What is the greatest common factor of 30 and 24? _____

19. Beth scores 8 more than 7 times the soccer goals that Jack scored.

Let J = the number of goals that Jack scored.

Write an equation using x that describes how many goals Beth scored. _____

20. At Sam's house it was 6°F . At Mary's house it was -8°F . Write an inequality to show the relationship between these temperatures:

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Total: _____

1. There were 16 giraffes and 18 hippos. What is the ratio of giraffes to hippos? _____

2. Cara helps her neighbors with chores every week. The following are the number of neighbors she has helped each week:

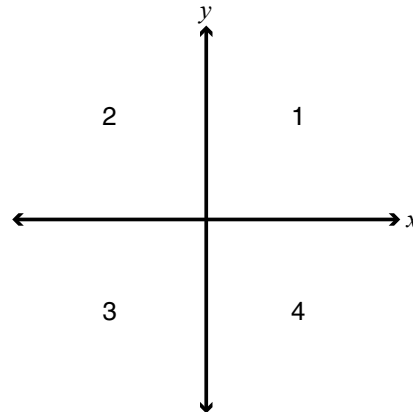
9, 5, 1, 8, 7

A. What is the mean number of neighbors that Cara helped? _____

B. What is the median number of neighbors that Cara helped? _____

3. Fill in the missing quadrants to complete the table:

Point	Quadrant
$(-4, -5)$	
$(-7, 9)$	
$(8, -7)$	4
$(1, 1)$	



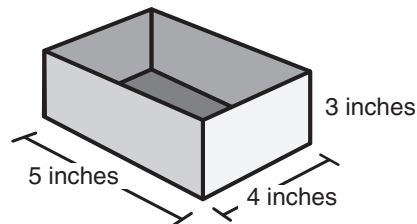
4. A. Write an expression for **3 subtracted from x** : _____

B. Write an expression for **9 added to x** : _____

5. Ethan has a box and a bag of blocks that are $\frac{1}{2}$ inch by $\frac{1}{2}$ inch by $\frac{1}{2}$ inch.

A. What is the volume of the box? _____ in³.

B. How many blocks will fit inside Ethan's box?
 _____ blocks.



6. Josh can write 4 short stories in 2 weeks. How long will it take him to write 8 short stories? _____ weeks.

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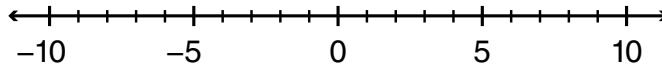
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7. Label the following numbers on the number line below:

a. -6

b. $-(-7)$

c. -9



8. Write "True" if the substitution makes the inequality true or write "False" if the substitution makes the inequality false:

Inequality	$x =$	Write True or False
$21x - 9 < 100$	6	
$23x + 6 < 100$	2	

9. Complete the ratio table:

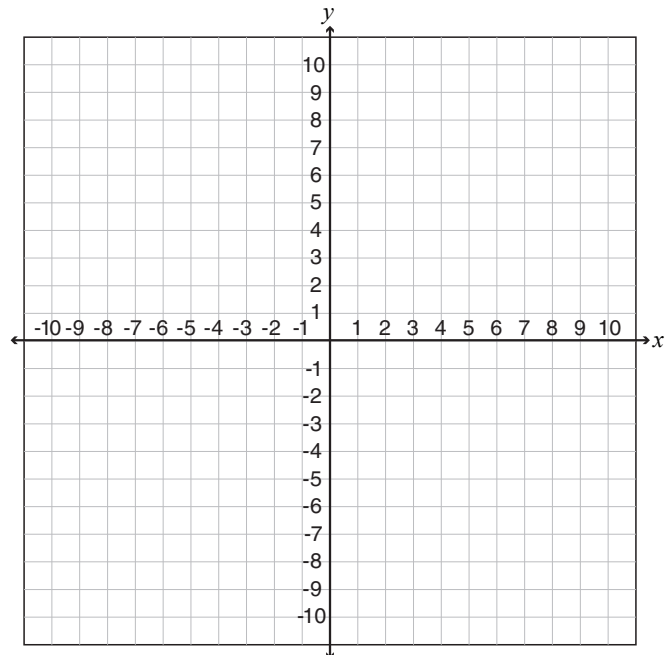
4	9
12	27
16	
	45

10. Tony is plotting the location of trees on a graph.

The trees are located at $(5, 8)$, $(5, -2)$, and $(-3, -2)$.

A. If the vertices form a rectangle, find the location of the last vertex: (_____, _____)

B. Plot all the vertices on the graph:



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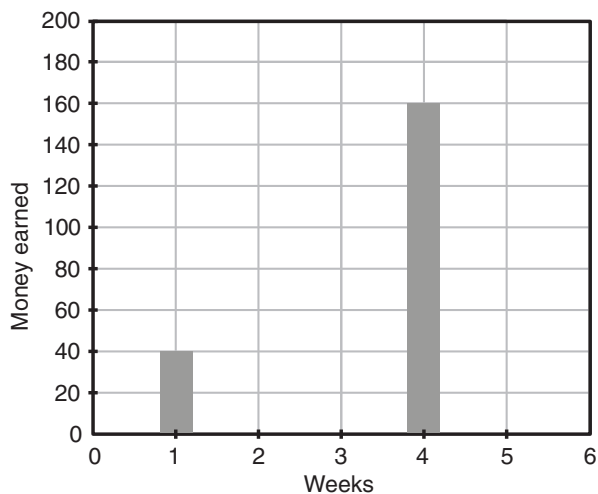
11. Nick earns \$40 per week at his part time job.

A. Fill in the table below to determine how much money Nick is paid.

Week	Money Earned
1	\$40
2	
3	
4	\$160
5	

B. Write an equation that illustrates the relationship between the week (W) and the money earned (m): _____

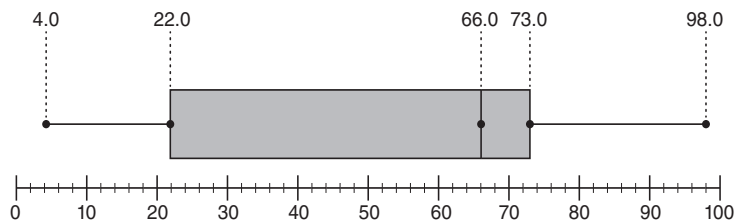
C. Make a bar graph for the amount of money earned:



12. You bought 6 shirts for \$48. If all the shirts cost the same, what is the cost of each shirt?

\$_____ per shirt.

13. Below are the number of games students in a class played over the summer:



What is the range of games played over the summer? _____

What is the median number of games played over the summer? _____

What is the maximum number of games played over the summer? _____

14. Diver A dove to a sea level depth of -24 feet. Diver B dove to -10 feet.

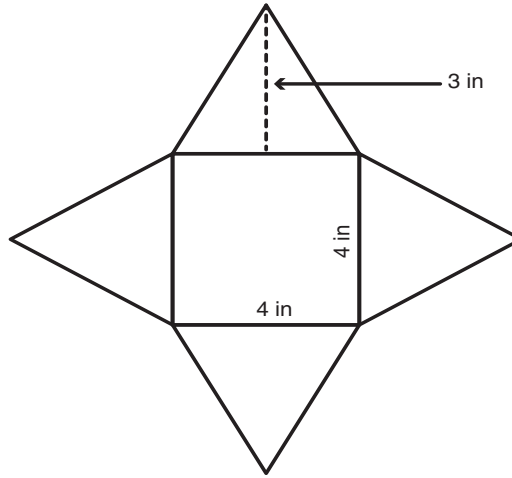
Which diver dove the deepest? _____

Diver A was how many feet under water? _____

15. $4^2 =$ _____

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16. Steve wanted to figure out the surface area of a rock shaped like a pyramid. What is the surface area of the rock? _____ in².



17. Joe runs 2 miles in 12 minutes. If he runs at a constant rate of speed, how long will it take him to run 9 miles?
_____ minutes.

18. What is the greatest common factor of 44 and 18? _____

19. Mike read 8 more than 7 times the books that John read.

Let J = the number of books that John read.

Write an equation using x that describes how many books Mike read. _____

20. Dan's house is 8 feet below sea level. Mary's house is 4 feet above sea level. Write an inequality to show the relationship between these houses:
