

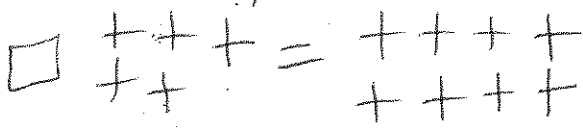
MODEL/SOLVE

Station 2

You can use algebra tiles to help you solve equations.

Each square yellow tile shows +1. Each square red tile shows -1. Each rectangular yellow tile shows x . You use the equation mat to show the two sides of an equation.

Work together to use algebra tiles to show each equation. Then use the tiles to solve each equation. Write the value of x for each equation below.

1. $x + 5 = 8$ 

2. $9 = x + 3$ _____

3. $4 + x = 6$ _____

4. $3x = 6$ _____

5. $2x = 12$ _____

6. $9 = 3x$ _____

Explain at least two strategies you used to solve the equations using algebra tiles.

Solving Equations

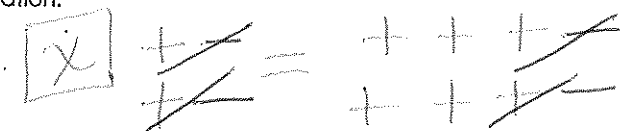
Max had some video games, and then he bought two more games. Now he has six games.

some $-(x)$
 two more $-(+2)$
 has six $-(=6)$

Challenge 1--Can you write an equation to represent this situation? Try it!! ☺

$$x + 2 = 6$$

Challenge 2--Can you draw a picture to represent this equation? Try it!! ☺ **Hint-use x as the unknown piece of your situation.



Challenge 3--Can you solve this equation? Try it!! Write a sentence to describe what you would do.

$$x = 4$$

- * balance
- * isolate
- * value of x

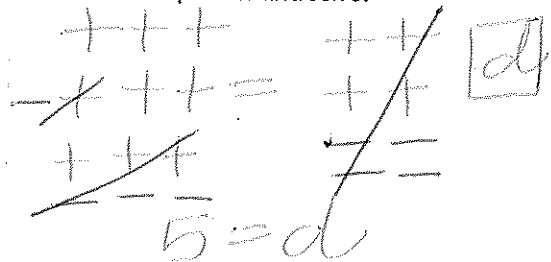
~~CHECK~~
 $(4) + 2 = 6$ ✓

On average a killer whale can grow to a length of 9 meters, which is 4 meters longer than a bottle-nosed dolphin. How long is a bottle-nosed dolphin? d

Write an equation to represent this situation.

$$9 = 4 + d$$

OK $9 = 4 + (5)$ ✓
 Model this equation and solve.

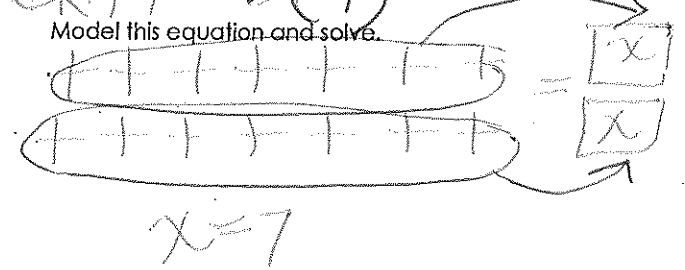


2 friends went to dinner at Joe's Crab Shack. They paid a total of \$14. If they divided the bill evenly, what is x , the amount each friend paid?

Write an equation to represent this situation.

$$14 = 2x$$

OK $14 = 2(7)$ ✓
 Model this equation and solve.



Last week Tiffany practiced her piano for a total of 7 hours. This was 2 hours more than she practiced the previous week. How many hours did Tiffany practice the previous week?

Write an equation to represent this situation.

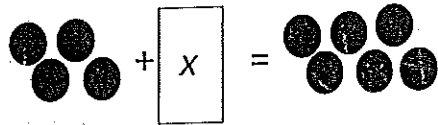
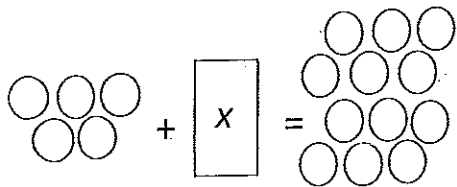
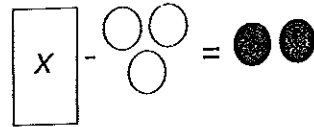
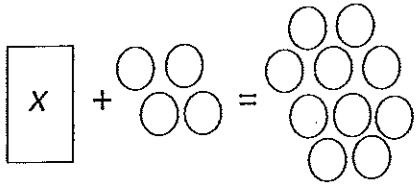
Model this equation and solve.

A pair of shoes costs \$25. This is \$14 less than the cost of a pair of jeans. Find the cost of the pair of jeans.

Write an equation to represent this situation.

Model this equation and solve.

Use the model to solve each equation:



NAME: _____

Algebra Set 4: Solving Equations

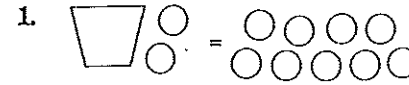
Station 3

In each picture, the cup is holding an unknown number of counters, x . If there is more than one cup, every cup is holding the same number of counters.

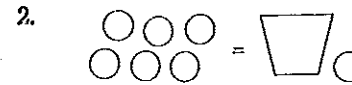
Each picture shows an equation. This picture shows $x + 5 = 7$. To make the two sides equal, there must be 2 counters in the cup. This means $x = 2$.



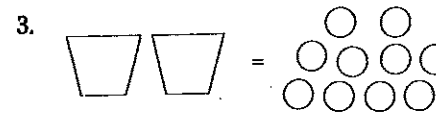
Work with other students to write an equation for each picture. Then find the number of counters in each cup. You can use the cups and counters at the station to help you.



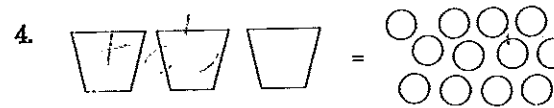
WRITE Equation: _____
SOLVE Solution: _____



Equation: _____
Solution: _____



Equation: _____
Solution: _____



Equation: _____
Solution: _____