

## Warm-up

1.  $7 \times 5 = 35$
2.  $15 \times 8 = 120$
3.  $9 \times 6 = 54$
4.  $14 \times 7 = 98$
5.  $8 \times 8 = 64$
6.  $12 \times 5 = 60$
7.  $10 \times 4 = 40$
8.  $20 \times 9 = 180$
9.  $6 \times 9 = 54$
10.  $13 \times 6 = 78$

Nov 12

What does equality mean????



When two  
things are equal

## Equality

- The idea that two quantities have the same value
  - > i.e.,  $6 + 4 = 10$

So.....

$$5 = 5 + 3$$
$$5 + 3 = 5 + 3$$

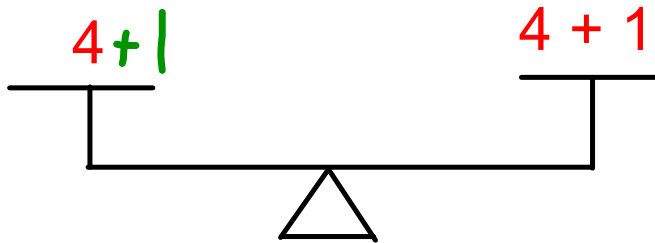
What if I add 3 to one side?

$$6 = 6$$

What if I take away 1 from one side?

$$6 = 6 - 1$$
$$6 - 1 = 6 - 1$$

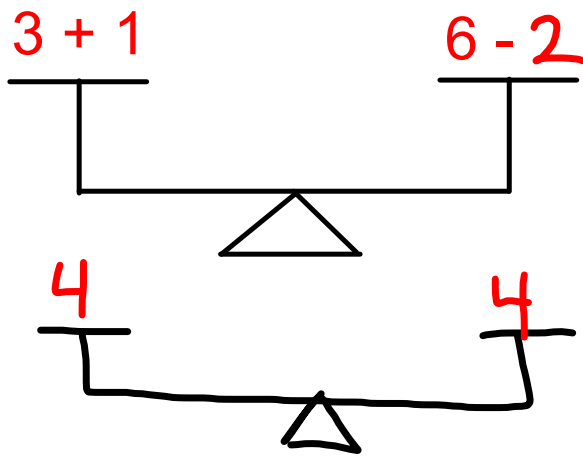
Let's use a balance scale



Is this balanced?

How can I make it balanced?

what about:



Balance these:  $12 - 5 = 11 - \underline{\quad}$

1)  $12 - 5 = 11 - \underline{4}$

2)  $13 - 5 = 1 + \underline{7}$   
 $8 = 8$  ✓

3)  $\underline{9} + 7 = 2 + 14$   
 $16 = 16$  ✓

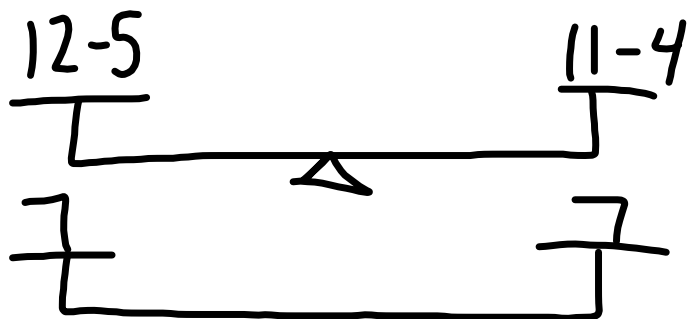
4)  $5 + \underline{7} = 15 - 3$   
 $12 = 12$  ✓

5)  $\underline{9} - 1 = 13 - 5$   
 $8 = 8$  ✓

6)  $14 - 1 = \underline{16} - 3$   
 $13 = 13$



$$12 - 5 = 11 - \underline{\quad}$$



$$7) \quad \frac{5}{9} + 4 = 12 - 3 \quad \checkmark$$
$$9 = 9$$

$$9) \quad 12 - 2 = \frac{7}{10} + 3 \quad \checkmark$$
$$10 = 10$$

$$11) \quad 6 + 10 = 8 + \frac{8}{16} \quad \checkmark$$
$$16 = 16$$

$$\checkmark 8) \quad 15 - 1 = 4 + \frac{10}{14} \quad \checkmark$$
$$14 = 14$$

$$\checkmark 10) \quad 11 - \frac{6}{5} = 2 + 3 \quad \checkmark$$
$$5 = 5$$

$$\checkmark 12) \quad 11 - \frac{6}{5} = 1 + 4 \quad \checkmark$$
$$5 = 5$$

