

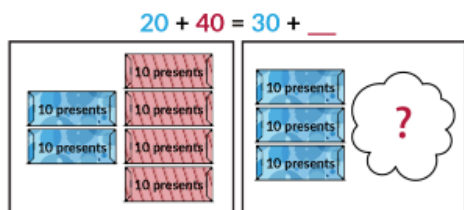
# January Math Newsletter

Grades 2-3

Take time with your family to talk and reason about math.

Both pictures have the same number of presents. There are 10 presents in each box.

How many presents are hidden behind the cloud? How do you know? How can you finish the equation to make it true?



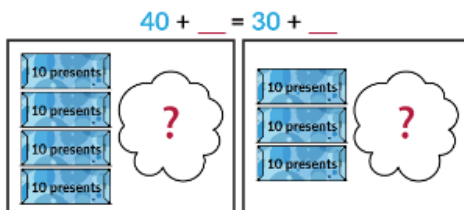
## Follow-up 1

What do you notice about how the blue number changed? What about the red number?

$20 + 40 = 30 + \underline{\quad}$

## Follow-up 2

- Now there are more than 60 presents. You get to decide how many!  
How many presents might be hidden behind each cloud? How do you know?
- Finish the equation to make it true.  
What do you notice about how the numbers changed?



Look at the two pictures. What do you notice?

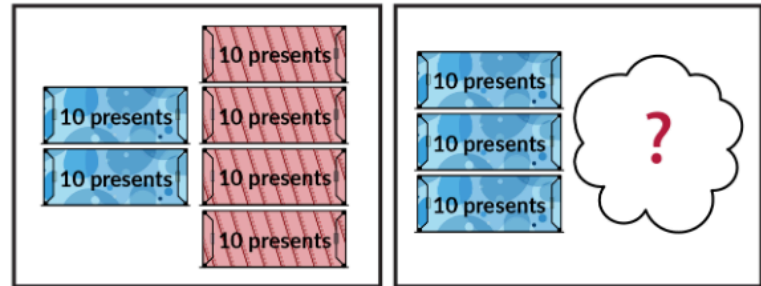


- How are pictures A and B mathematically the same, and how are they different?
  - A and B are the same because...
  - A and B are different because...
- Make a third set of mittens. Explain how your picture is the same as pictures A and B, and how it is different.

Flip over to see if your thinking matched ours **AND** to get links to interactive math games to play with your family at home.

Possible thinking/reasoning for the activities on the front

$$20 + 40 = 30 + 30$$

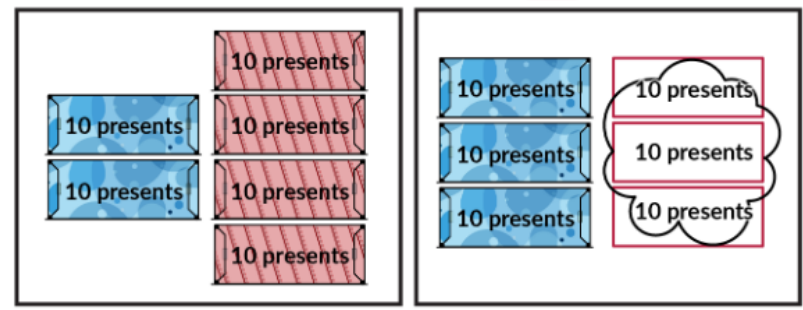


Numbers chosen by students will vary. Responses should have the same total amount on both sides of the equal sign. Here's one possible solution:

You might hear students say:

I see 6 boxes of presents in the first picture. I know there are 10 in each box so that's 60 presents: 10, 20, 30, 40, 50, 60. I also see 3 boxes of presents in the second picture, so I know you need 3 more boxes to make 6 boxes. That's 3 boxes, or 30 presents, in the second picture.

$$20 + 40 = 30 + 30$$



- How are pictures A and B mathematically the same, and how are they different?
  - A and B are the same because they both have more columns than rows. They both look like arrays. They both show pairs of mittens. They both show 6 equal columns of pairs of mittens. They can both show a multiplication problem with a factor of 6.
  - A and B are different because they have different numbers of rows and different totals. A has 5 rows of 6 pairs of mittens, which is equal to 30 pairs of mittens. B has 4 rows of 6 mittens, which is equal to 24 pairs total.
- Make a third set of mittens. Explain how your picture is the same as pictures A and B, and how it is different.



My array is the same as A and B because it is an array of mittens with 6 columns. It also has more columns than rows like A and B do. Mine is different from A and B because it has a different number of rows and a different total than A or B. Another difference is I only have red mittens in my array.

# Interactive Math Games

Add Numbers by Making 10 Game

<https://www.splashlearn.com/s/math-games/add-numbers-by-making-10>

Understand Rows in an Array Game

<https://www.splashlearn.com/s/math-games/understand-rows-in-an-array>

Type the URL into your computer, tablet or phone to play.