Decomposing Teen Numbers

What's Happening in This Activity:

This lesson is to help children practice counting and working on number recognition.

Related Activities to Use:

After this Activity:

- I'm Thinking of A Number

Questions to Ask:

- What does a long equal? How many longs do I need to fill up a ten frame? How do a write the number for a long?
- Can you come up with a number sentence for this number? How did you do it? Can you prove to me that this number sentence is correct!

Materials:

Multiple uses:
Three ringed file folder
Velcro
Dry erase markers
One time use:
Glue, scissors, staples.

Prep Work:

1. Print off pages using front and back

Multiple uses:
Laminate and hole punch. Place Velcro on the two large squares. Place in file folder. Cut out the ten frames and Velcro the back of them.
One time use:
Print double sided and staple together.

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Before the Activity:

This lesson is more for kindergarten and first grade students! Second grader teachers may want to use it as a very quick review, or to help a struggling math student.

I'm going to show you a new tool today that we can use to help us understand numbers better.

But first can anyone tell me about this? (Hold up a long from your base ten blocks. The goal is to get them to tell you it is a long, represents 10, and has 10 cubes. If they don't tell you that right away, then ask questions that will guide them to giving you those answers.)

Wow, you guys got it. Yes, this is a long and it has 10 cubes. (Hold up a ten frame) This is a 10 frame and it also represents a 10. Let's check it out and see how it works. Can someone count me out 10 cubes so I can put my long away?

Ok, now we are ready to see if a ten frame and a long are REALLY the same thing. Will you help me count? (Count out loud as you place one cube in each ten frame box.)

Well look, a ten frame is the same thing as 10 cubes or one long. A ten frame equals 10.

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Before the Activity:

Alright, let's try this number. Let's show 17 with base ten blocks.
(Get out one long and seven cubes)

Ok, how can we use these cubes to fill in the ten frames?

Good! Let's "break" this long apart and get out 10 cubes. Now we can fill in the first Ten Frame with our cubes from the long.

Now I still have these seven cubes left. Where should they go?

That's right, we can stick them in the second ten frame box. (Count out the ones as you place them in there)

Alright, let's see if I really have 17.

Point to the first box. What does this box equal?

Yes, 10. So there is no need for us to count each one of these. We can start at 10. Now we move into the second box and start counting.

We were at 10, so this cube makes _____.

Yes Eleven! (Point to the next cube) Twelve, thirteen, fourteen……seventeen.

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Before The Activity:

We did it. We showed 17 on a ten frame and with our base ten blocks.

Now let's look at what we have.
What do you notice?
What is similar?
What is different?
Do you see any patterns?

Wow! Those are some great observations. (Say a few that were very good and will help them answer this next question.)
Based on all that we observed, can you come up with a number sentence that shows what we did?

That is right!!! We have 10 in the first ten frame and 7 in the next ten frame. When we add the two together we get 17. 10 + 7 = 17

You may need to do this a few more times with kindergartners!

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Activity Time:

I have this fun book that I need you to help me put together.

Let's look at our first page. What number does it have at the top?

Yes, it is an 11.

Can you show me 11 using the base ten blocks?

Yes, we need one long and one cube.

Now, look at the ten frames in front of you. Can you find a ten frame that equals one long?

Way to go! I see that you chose a ten frame that is completely filled in. Good job. That does equal 10. Let's put it in the big empty box.

Now what does this ten frame equal again? Yes, 10! So we are going to write the number 10 next to it. (Monitor to make sure the number is written correctly)

Now we have one cube left. Can you find the ten frame that equals one cube?

Oh good job!! You found the ten frame that only has one monster. Let's put it into this box, and we can write the number 1 next to it.

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Activity Time:

Now it is time to make a number sentence (equation). What do you think the number sentence should be? (If they can't come up with an answer, guide them to look at the ten frames and what they equal.)

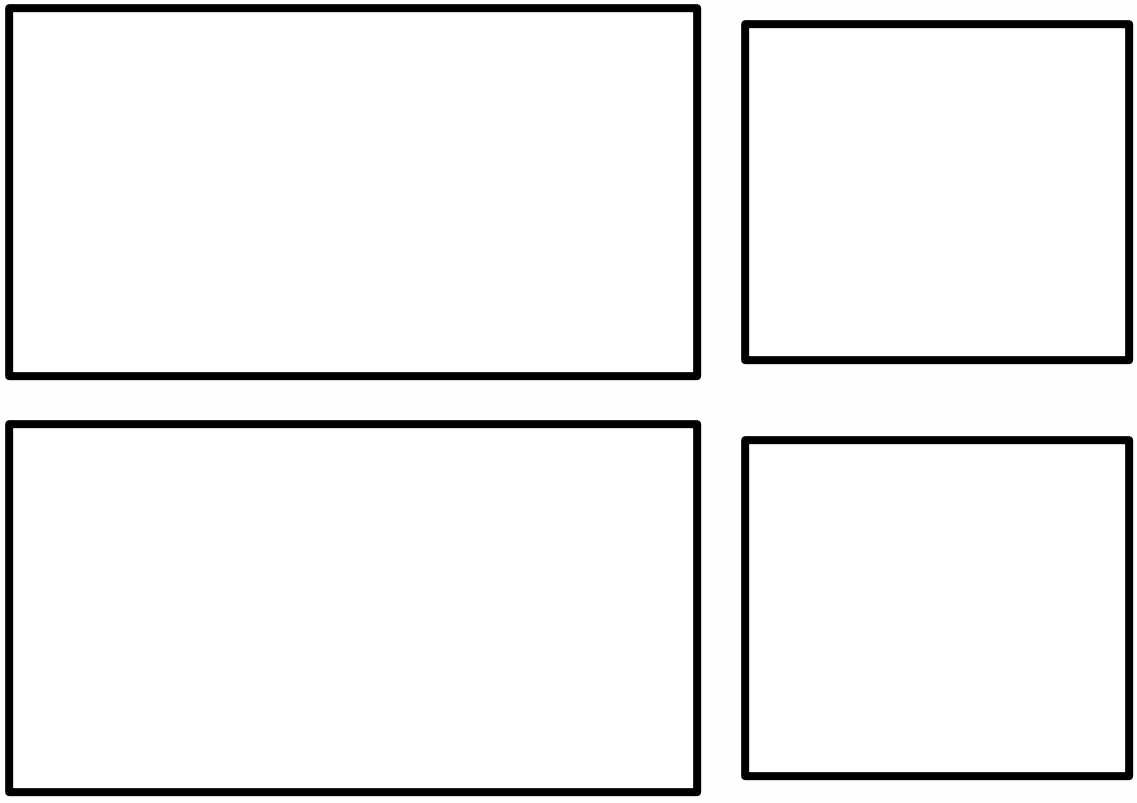
That is right 10 + 1 = 11. Let's write this at the bottom of the page. (Monitor to make sure they are writing the numbers correctly)

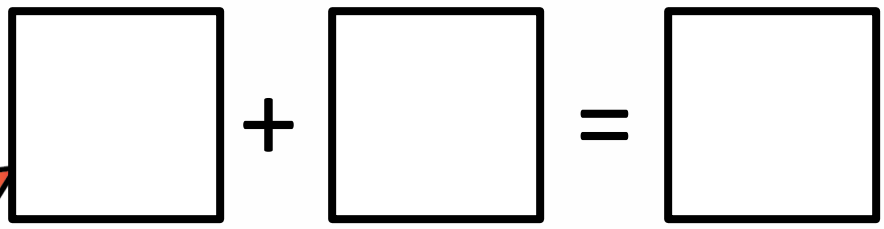
Kindergartners may need help finishing the rest of the book, but older children may be able to finish it on their own.

After the Activity:

Once the book is complete have at least one child explain how they figured out each blank!

11





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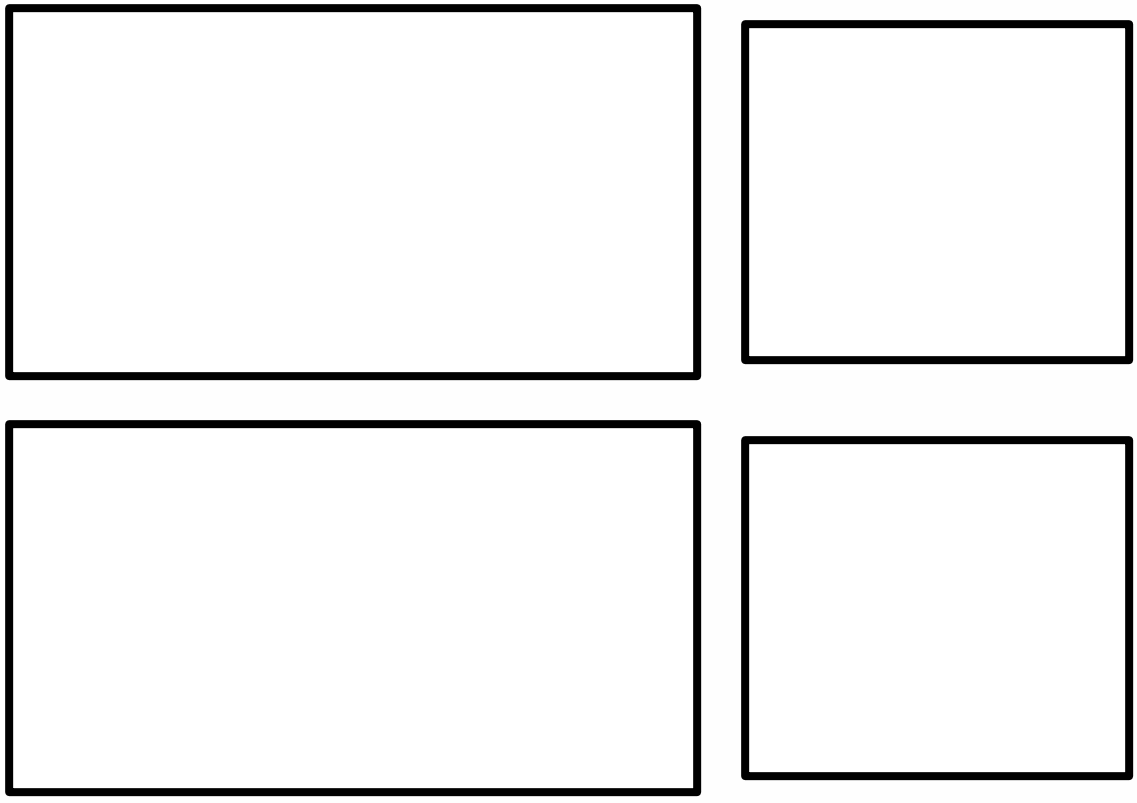

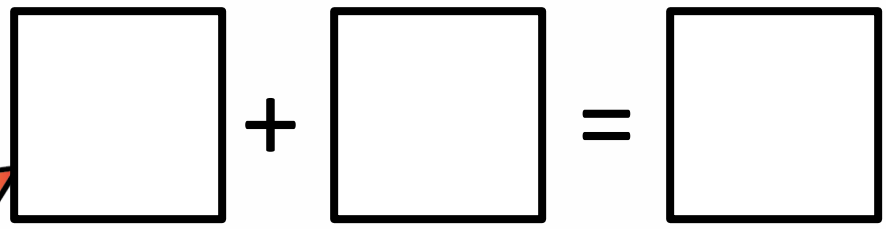

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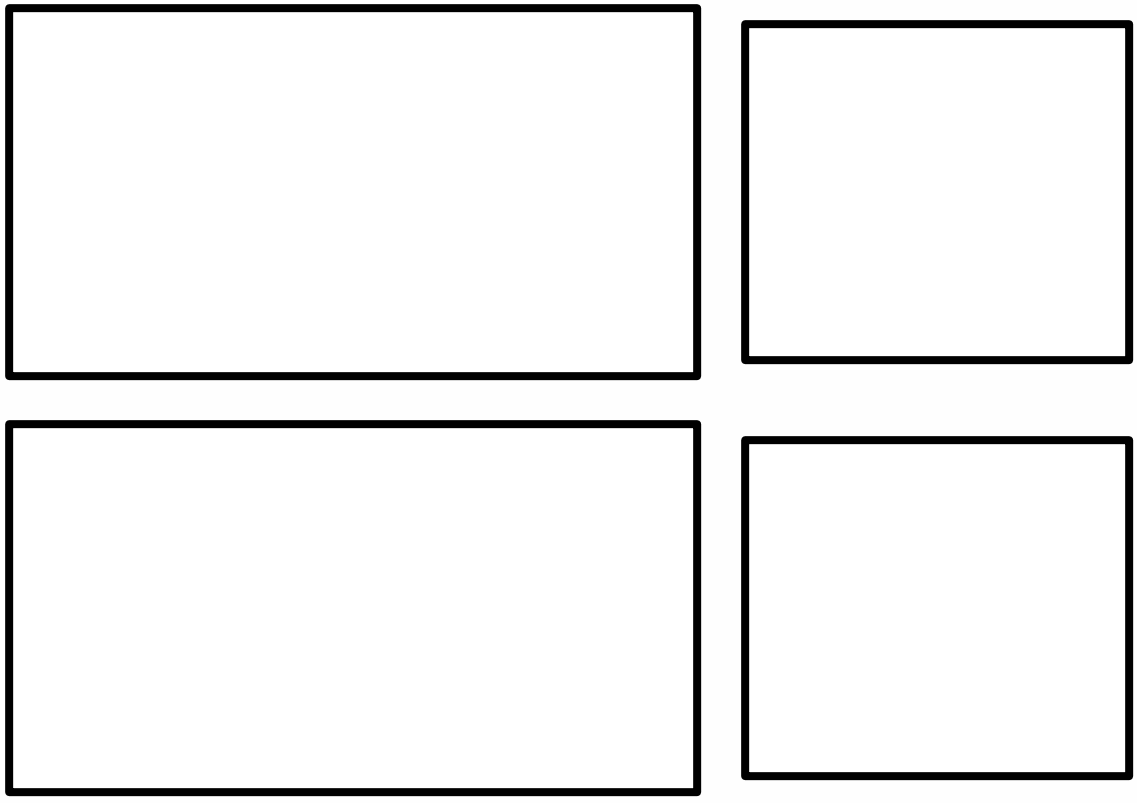

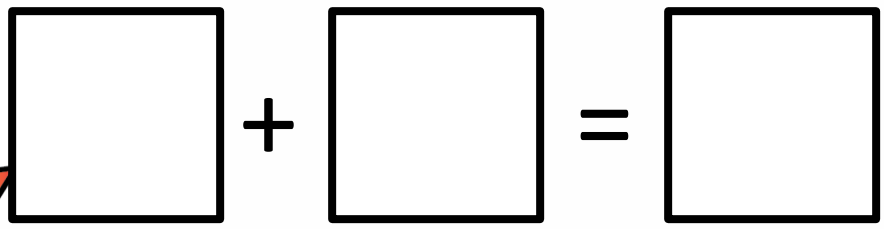

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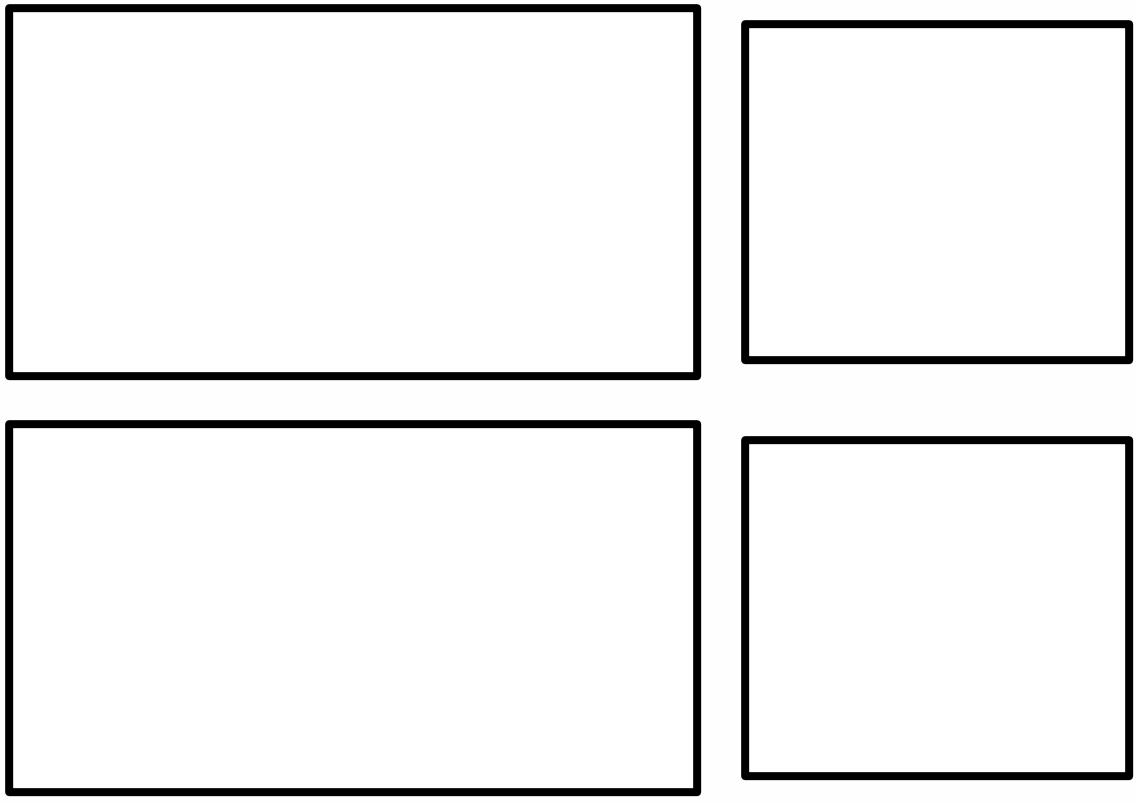

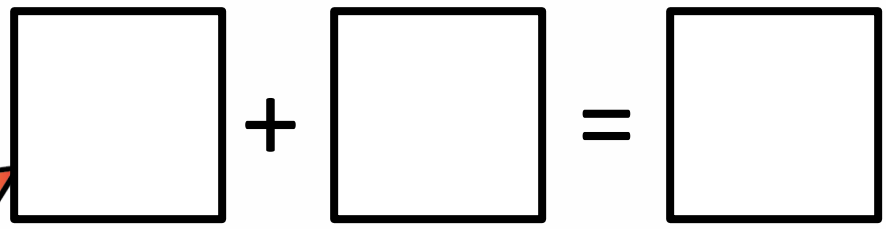

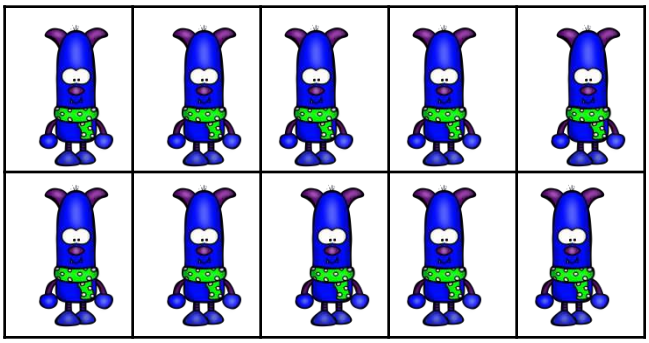

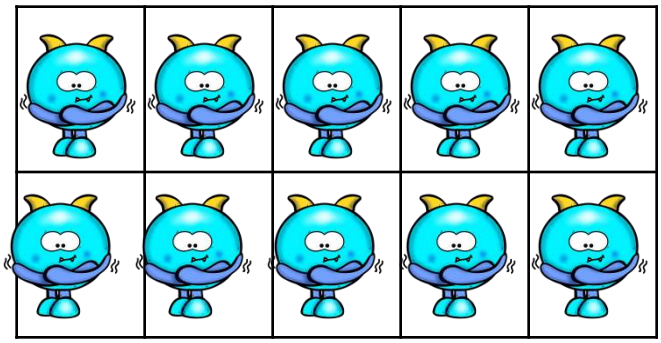

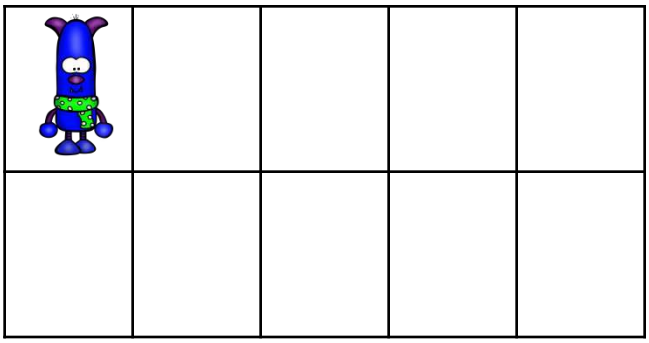

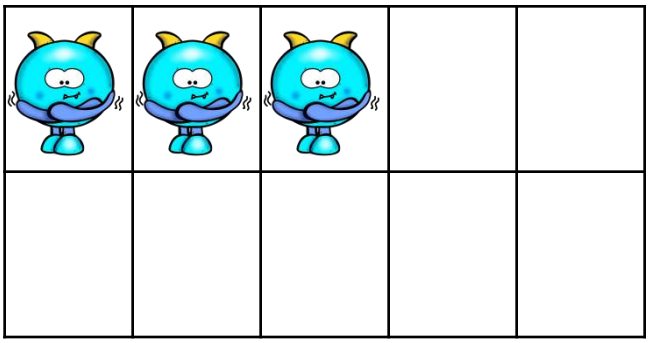

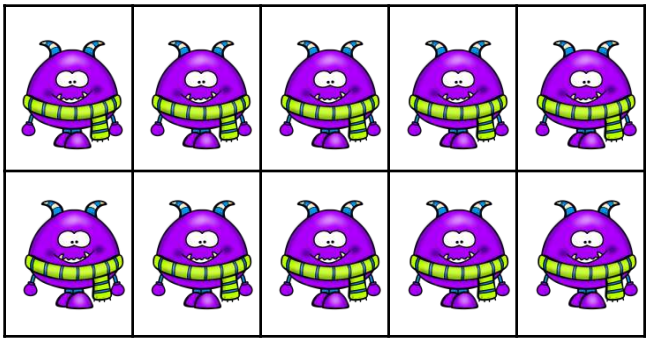

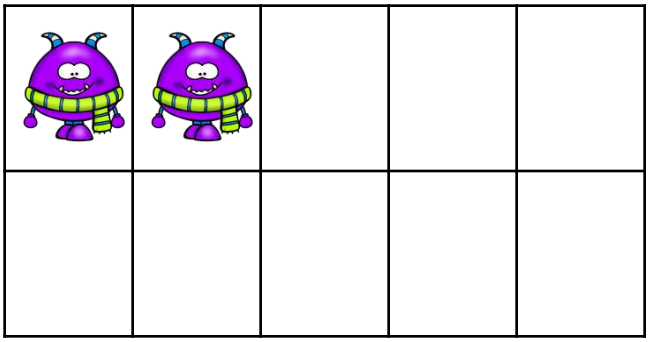

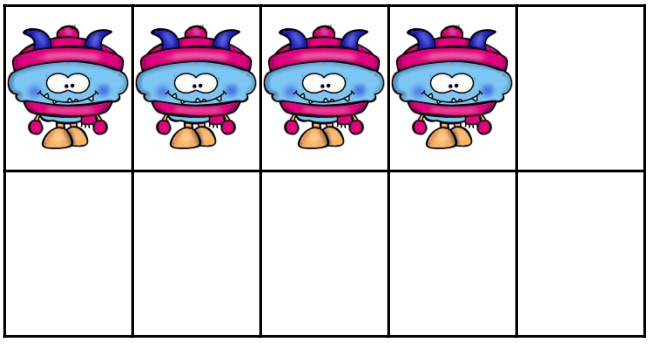

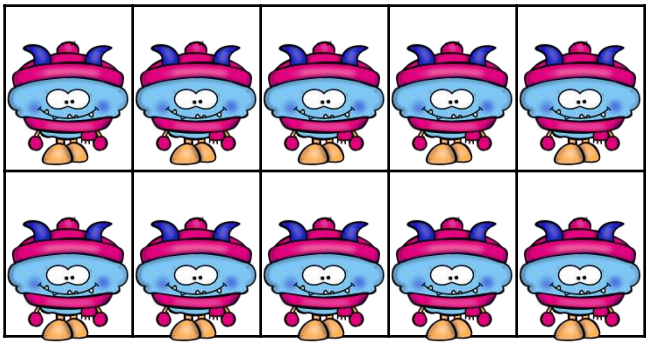

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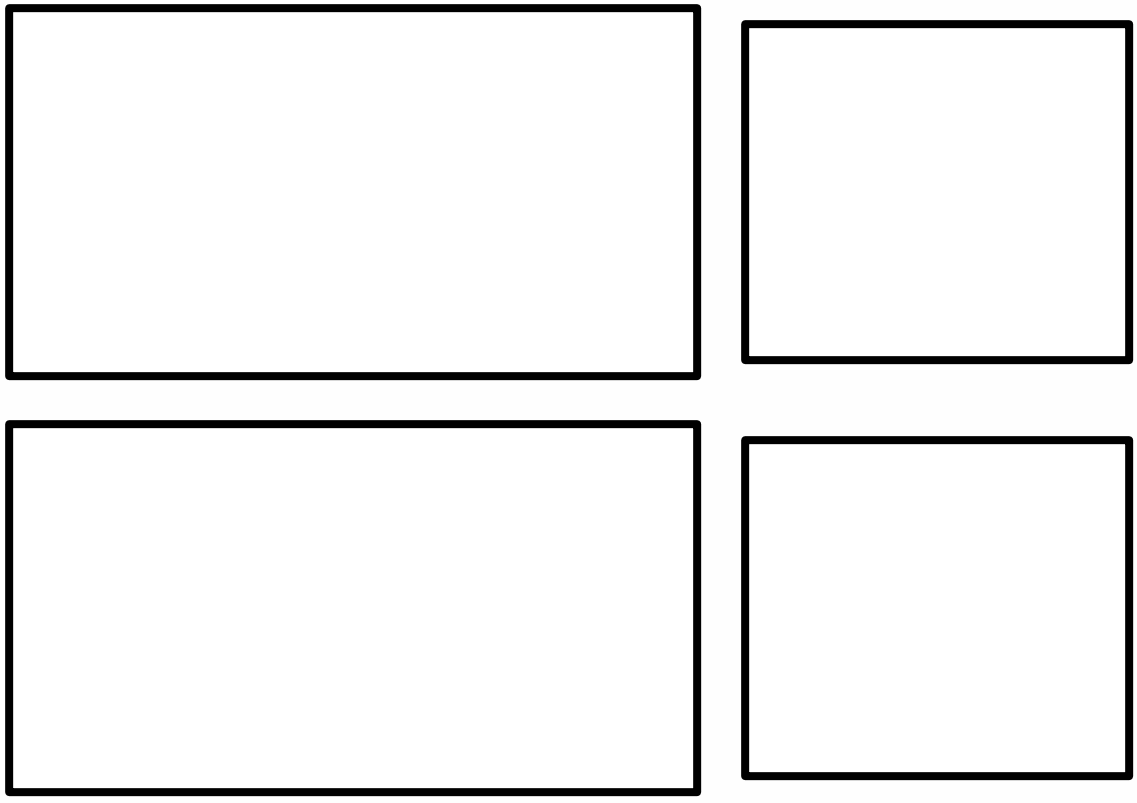

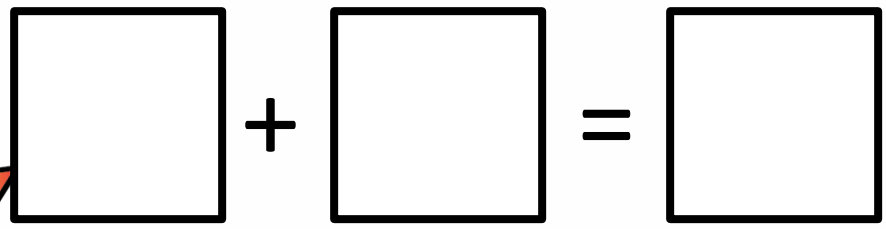

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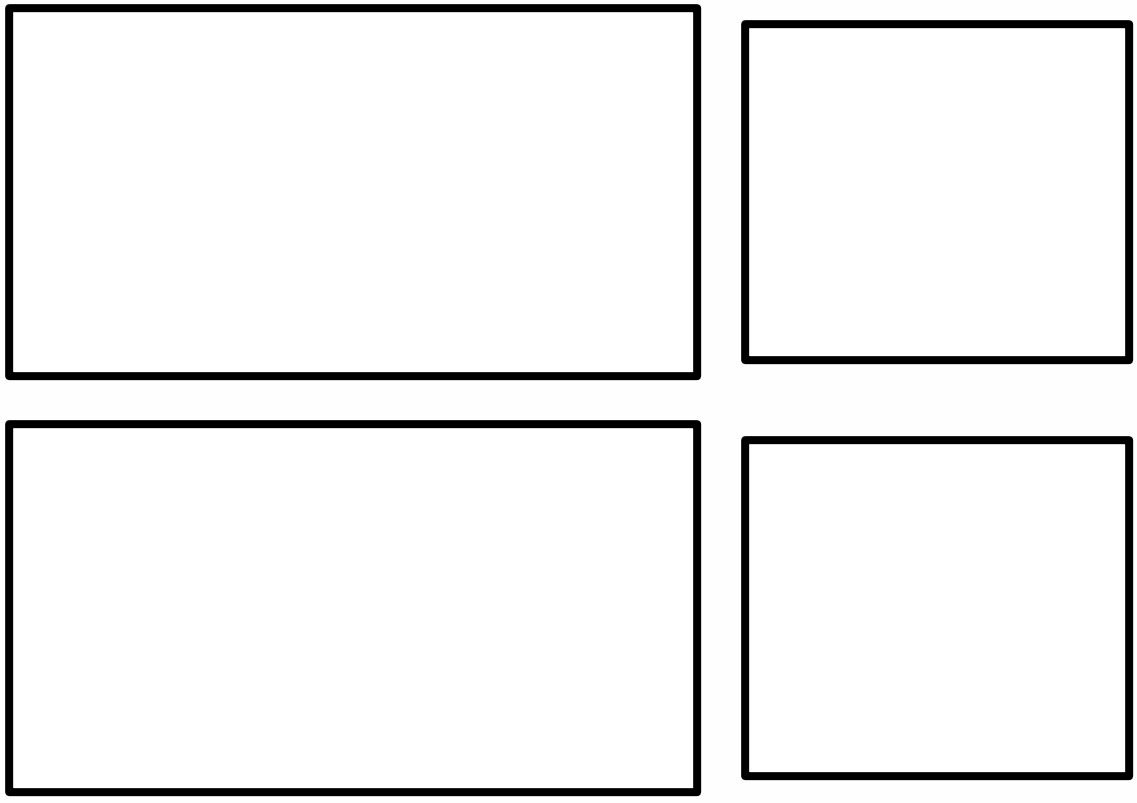

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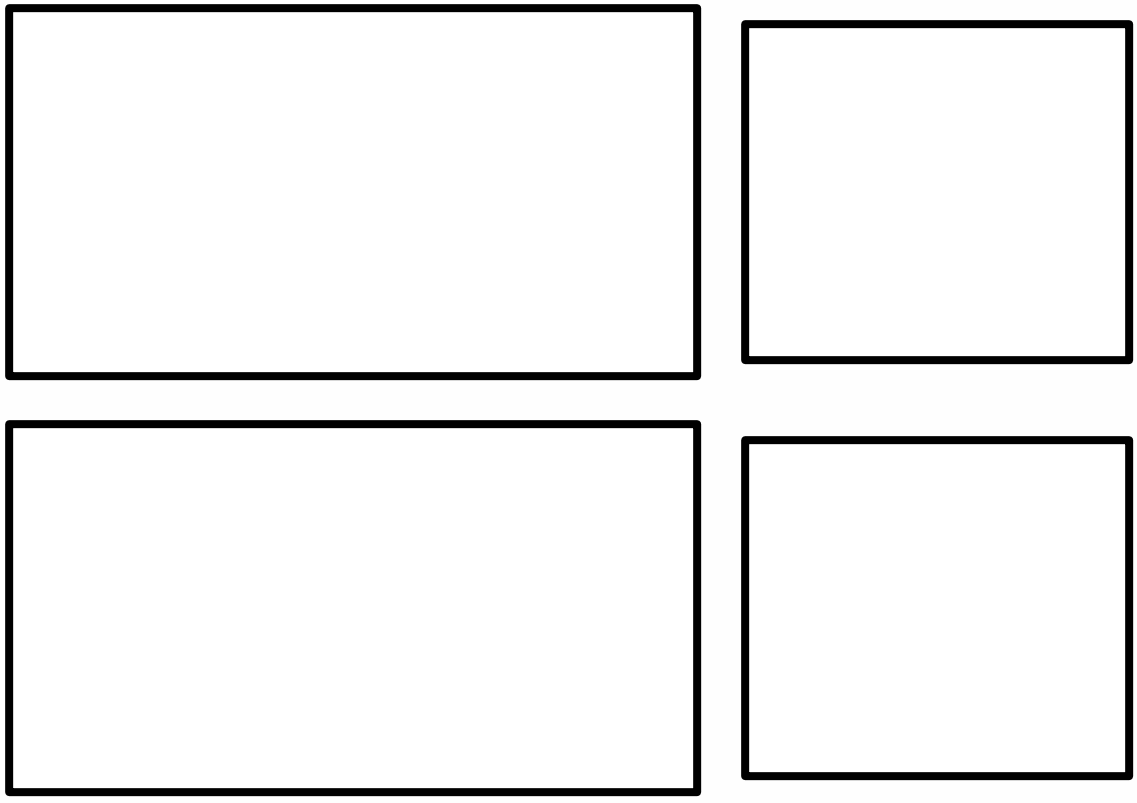

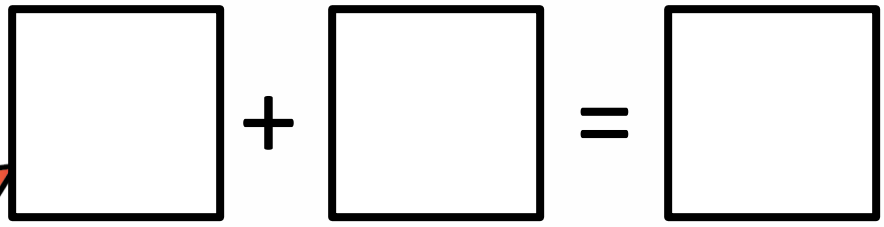

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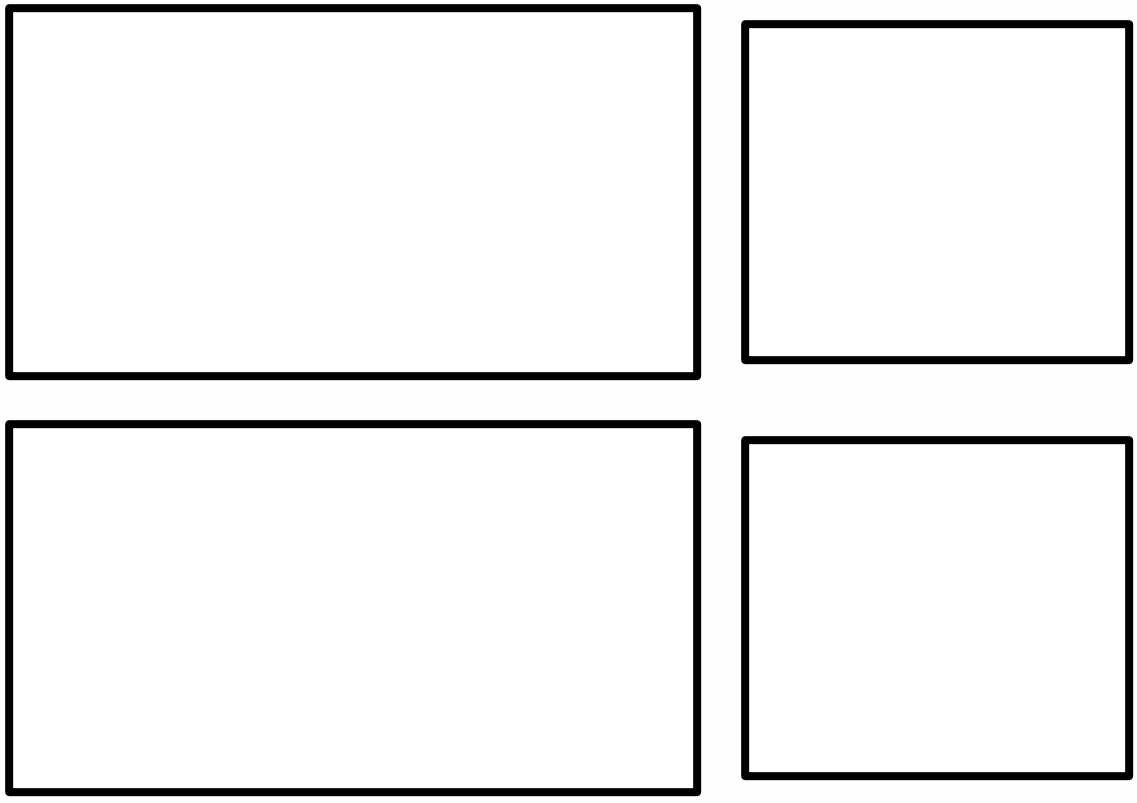

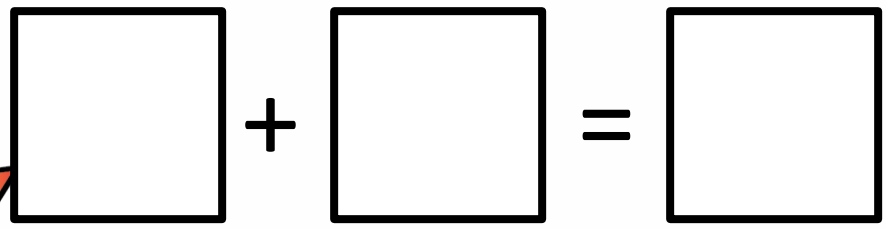
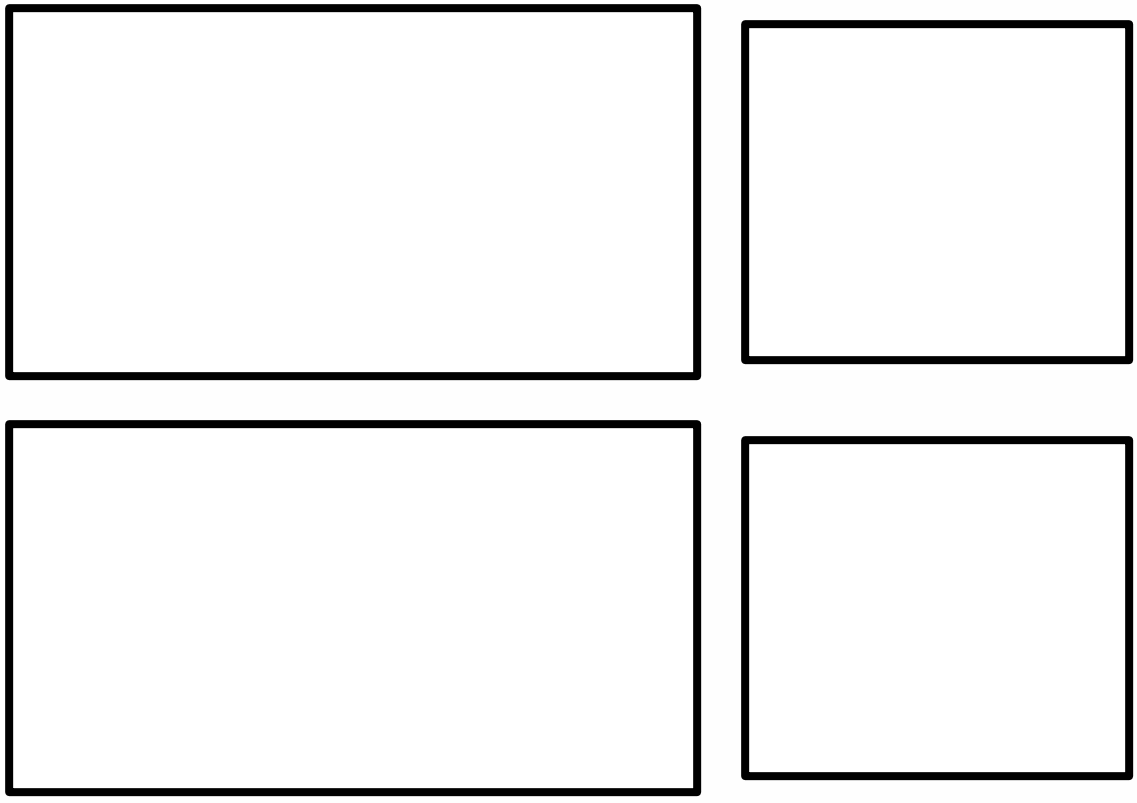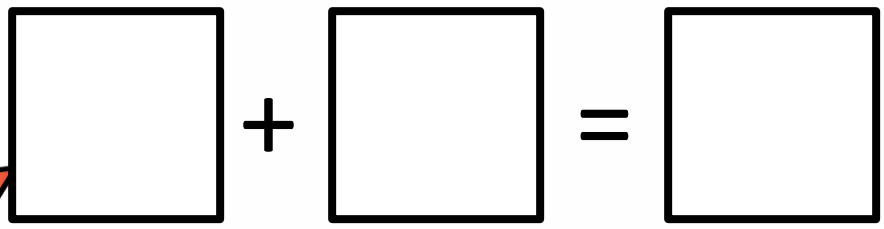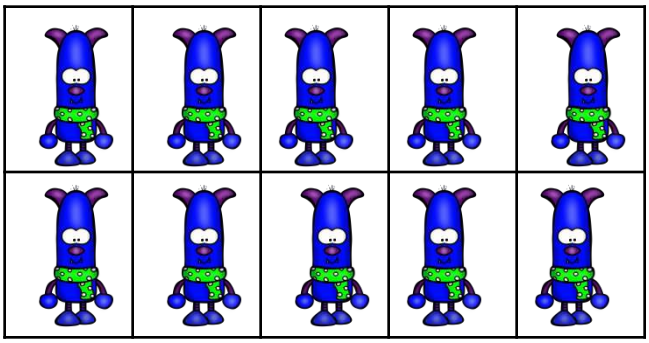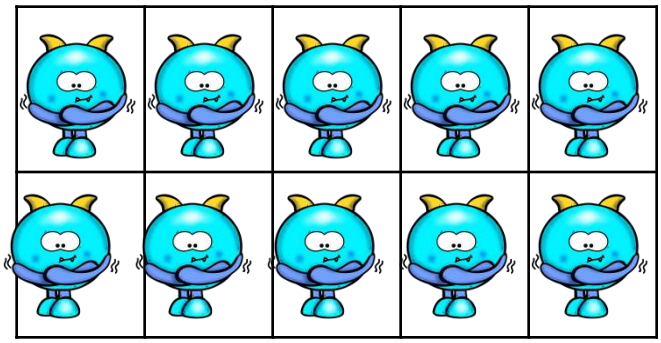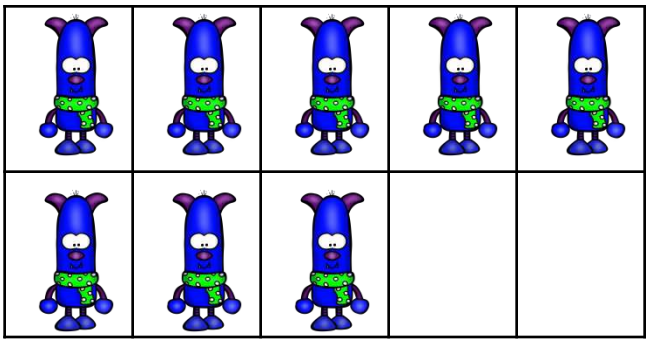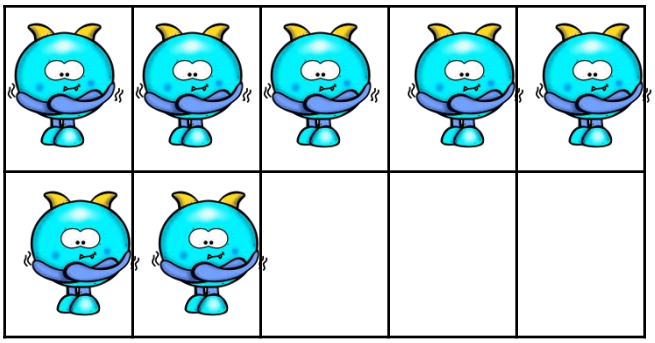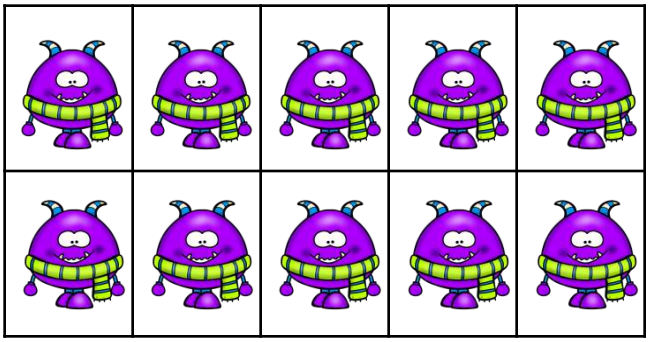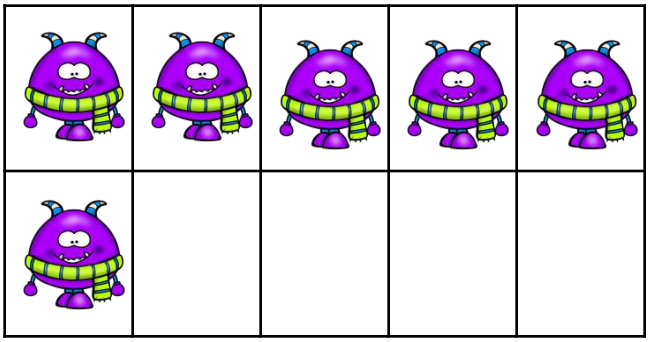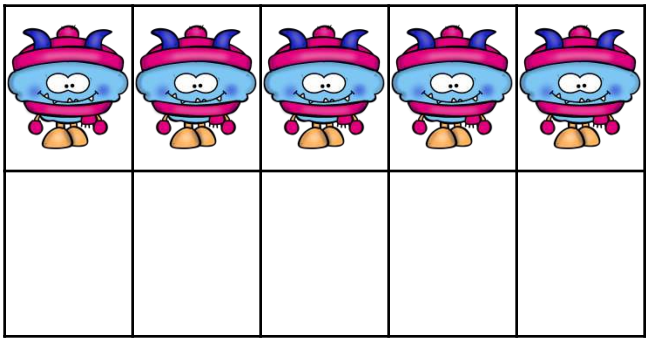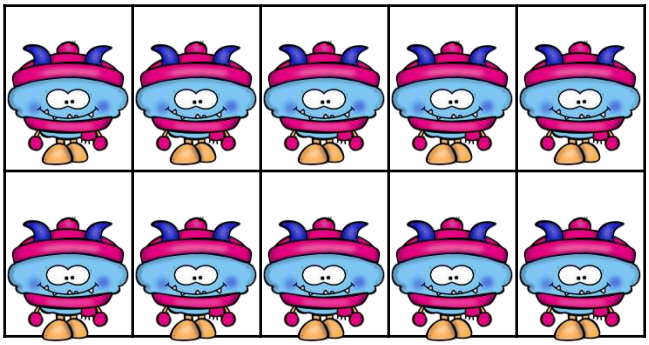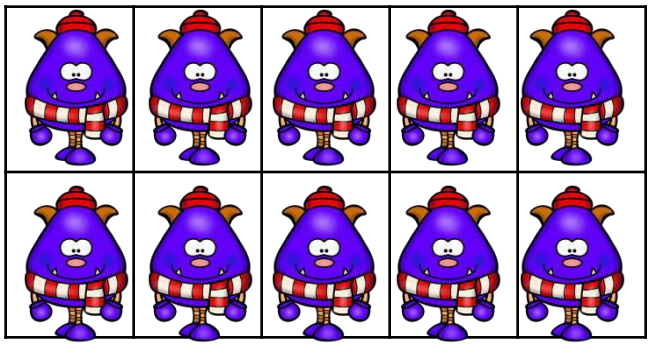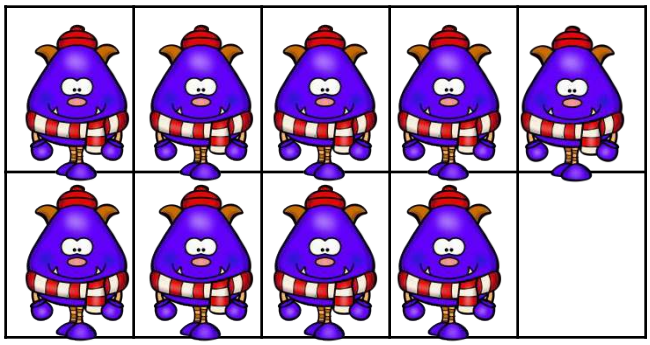
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