**DIRECTIONS:**
Glue printable notebook into spiral notebook. Go through the printable  step by step and have students make their own array with grid paper.

**Other Resources:**
Game for building understandings of arrays
Task cards and assessment for division

**YOU MAY…**
Print as many copies as you would like for your OWN personal use
Save this file on YOUR computer
Share on a blog, facebook page, ect as long as there is a direct link to You've Got This

**PLEASE DO NOT…**
Make copies to give to your fellow teachers or friends. Please share the link with them so they can download their own personal copy.
Save to any file that can be accessed by anyone besides you. This includes dropbox, 4shared, facebook groups, shared drives, ect
E-mail just the PDF
Claim this printable as your own
Post just the PDF on your blog, facebook page, ect
Sell or profit in any way from the PDF

# How to create a model for a division problem

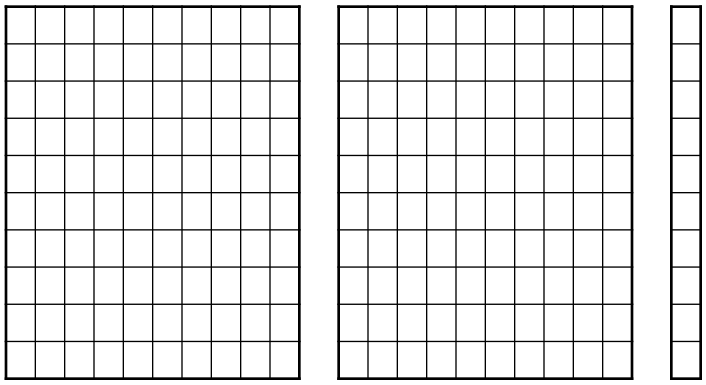
1. In the following problems circle the dividend and underline the divisor.
   - The dividend is the number that is being divided up!!!

400/16

210/12

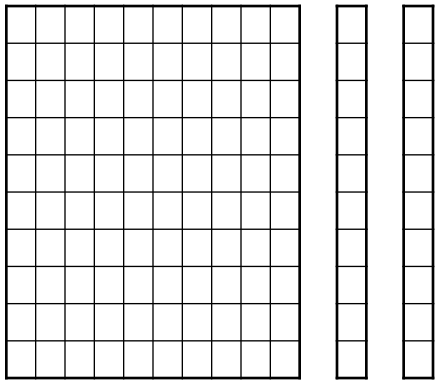
2. Begin by cutting out enough grid paper for the dividend.

   - In 210/12 I need to cut out 210 squares. When I'm done I will have something like this.



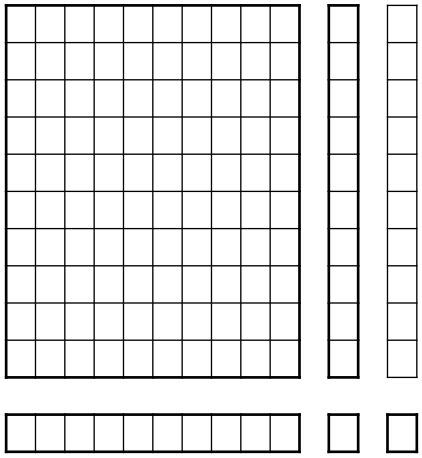
   - In the division problem, 400/16 the dividend is _____. So you need to cut out _____squares or cubes.

3. Now it is time to get the dimensions for your array. The divisor tells you how many cubes will make up the length of your array. In 210/12, I will have 12 cubes going across the top of my array. To do this I will glue down one flat and two longs.



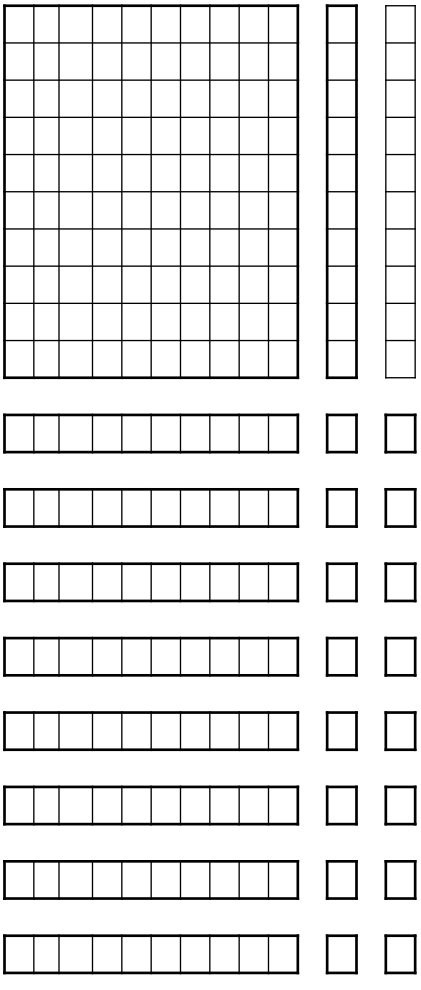
   - In 400/16 your divisor is _____. That means your length will be _____. Use the grids you have already cut out and glue them down so you have _____ cubes for your length.

4. The last step is to finish off your array. An array is always in the shape of a rectangle or square. Use whatever cubes you have left to make the height for your array. Cut apart the remainder of your grid paper to make a row. When you can no longer make a complete row you are done.



- My array is a 12 by 11 but I still have cubes left over so I will continue to make rows.

- I ended up making 18 rows before I didn't have enough cubes to make any more rows. Now my array is a 12 by 18, and I have four cubes left over. Here are the equations I can make to represent this array.



- 12 x 18 + 4 = 220
- 220/12 = 18 r4

- Finish dividing up your 400 cubes into 16 equal columns. When you are done write two equations that represent your array here.

_____

_____