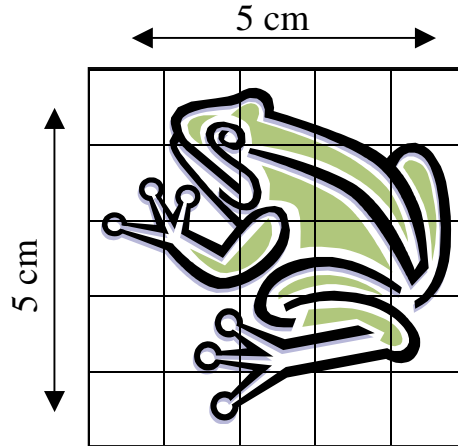


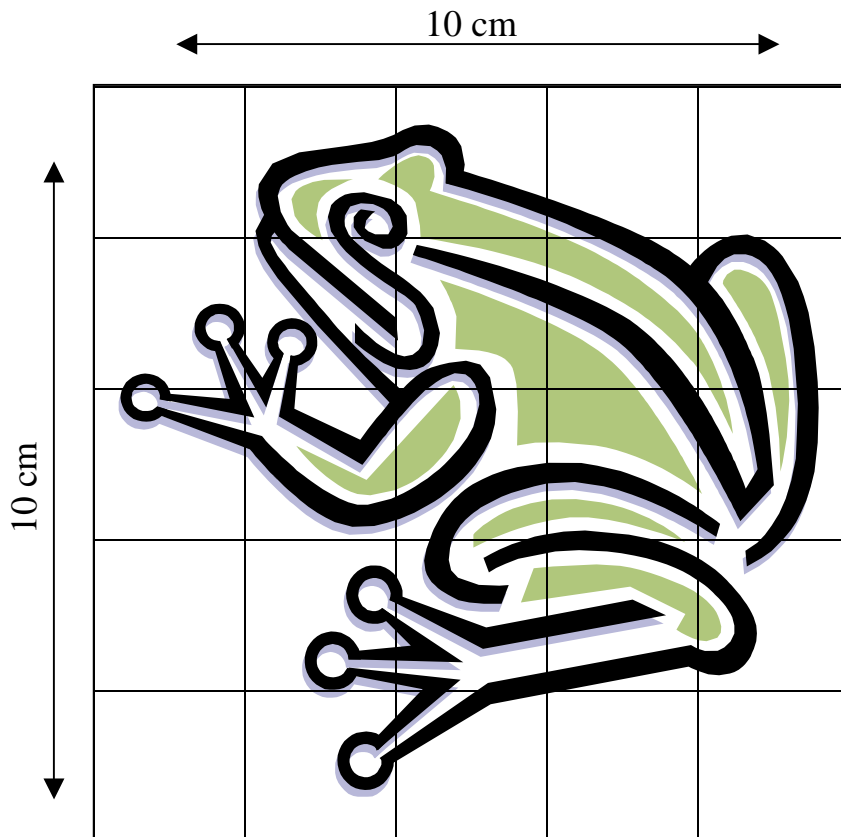
Grid Transfer

The object of this assignment is learning how to use a **grid** to **transfer** a picture. Using a grid you can change the **scale** of an image and make it either larger or smaller. Let's look at the example below:

In this case we made a grid over the original picture exactly 5 cm by 5 cm with grid lines every 1 cm.



Below we drew another grid twice as larger (10 cm). Next we transferred the picture over block by block until the picture was redrawn.



Ratio:

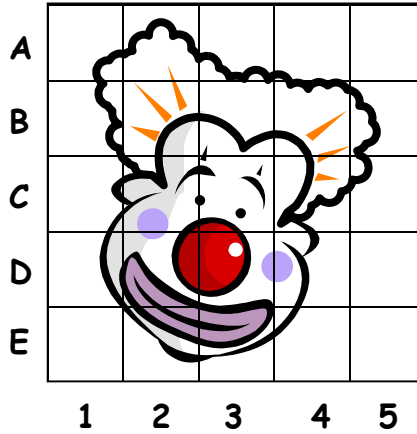
In this image, our original image was 5 cm and our transfer 10 cm. So our **ratio** is 5:10 or 5 cm on the first equals 10 on the second. When reduced our ratio is 1:2 (5 goes into 5 once and into 10 twice).

Your Turn!

Now it's your turn to try one. You will notice in the grids below that the columns (lines up and down) and rows (lines across) have been labeled. This is very useful when doing the transfer so you know where you are on the transfer grid.

Rows:

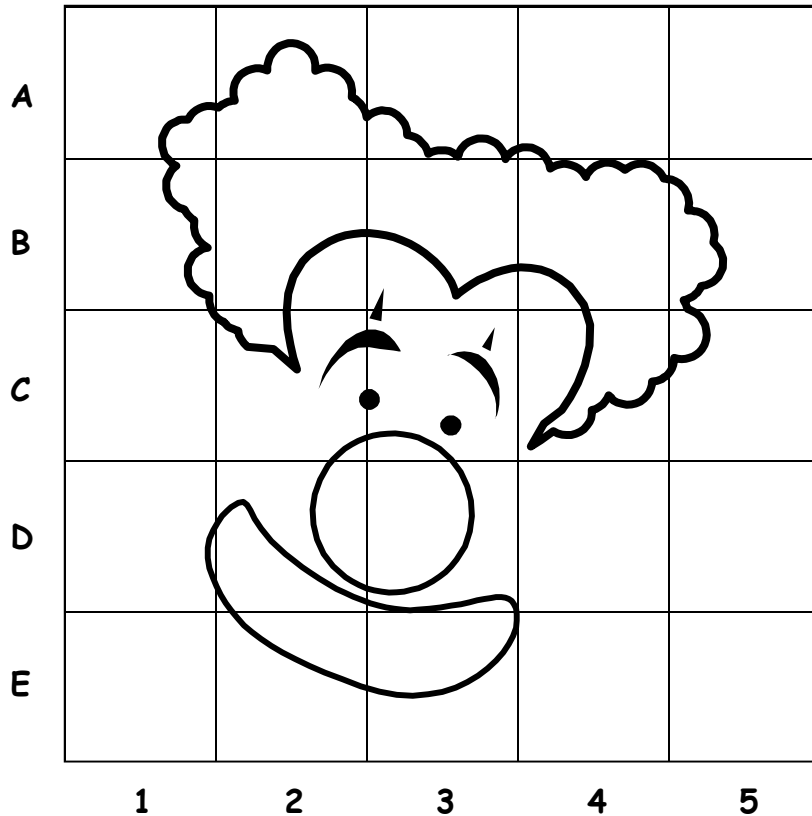
Rows run across the page and are labeled here from A to E. Most of the clown's nose is in row D.



Columns:

Columns run up and down the page and are labeled here 1 to 5. Most of the clown's nose is in column 3.

Finish the clown!



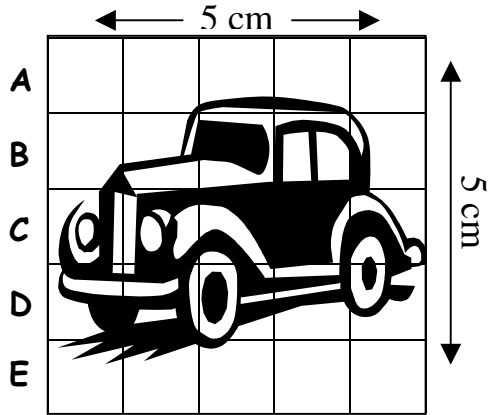
Ratio = 1:2

Name: _____

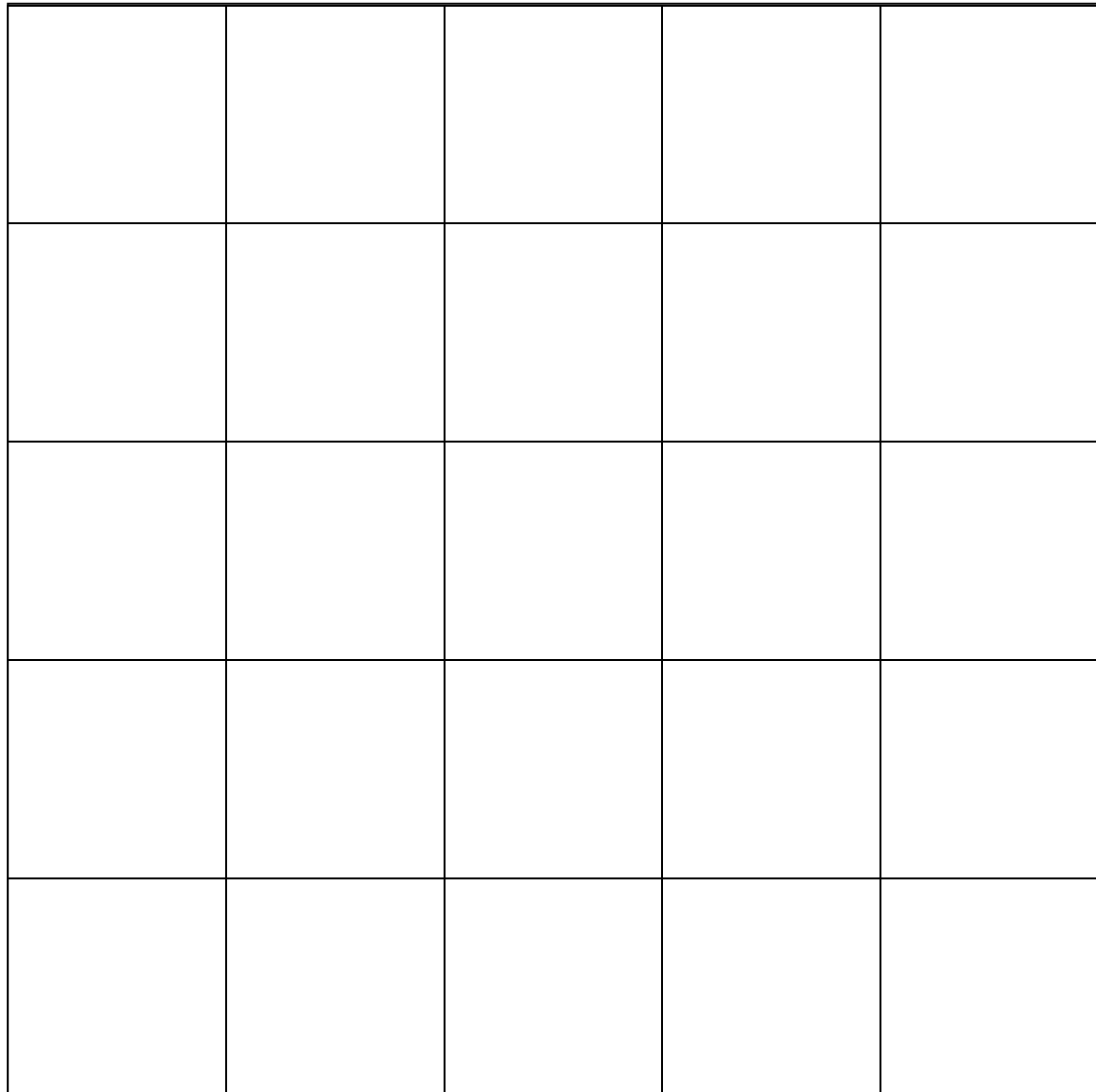
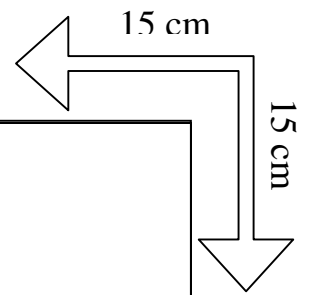
Class: _____

On your own!

Now let's try one on your own. Make sure to **label the grids** and the **transfer ratio**.



Ratio = _____



3

1

2

3

4

5

Something Original

Now it's time for you to find an original image of your own to transfer using a grid. Tell the teacher you're ready to start on your own image. Choose an image from the samples provided by Mr. B:

- 1) Draw an appropriate sized grid onto the image - **Use pencil and a ruler!**
- 2) Get a piece of 11 x 17 paper from the teacher.
- 3) Decide how large you can make the image so it will fit on the paper.
- 4) In pencil, lightly draw a grid on the paper that has a ratio equal to how much you want to increase your image (if you want it 3 times larger - your grid will need to be 3 times larger on your blank sheet).
- 5) Make sure you have the same number of rows and columns in both grids and that they are labeled.
- 6) Start transferring your image.

Recap

Answer the following questions:

1) What's the difference between a row and a column?

2) Reduce the following ratios:

a) $5:15 = 1:3$

c) $6:16 =$

b) $2:4 =$

d) $9:81$