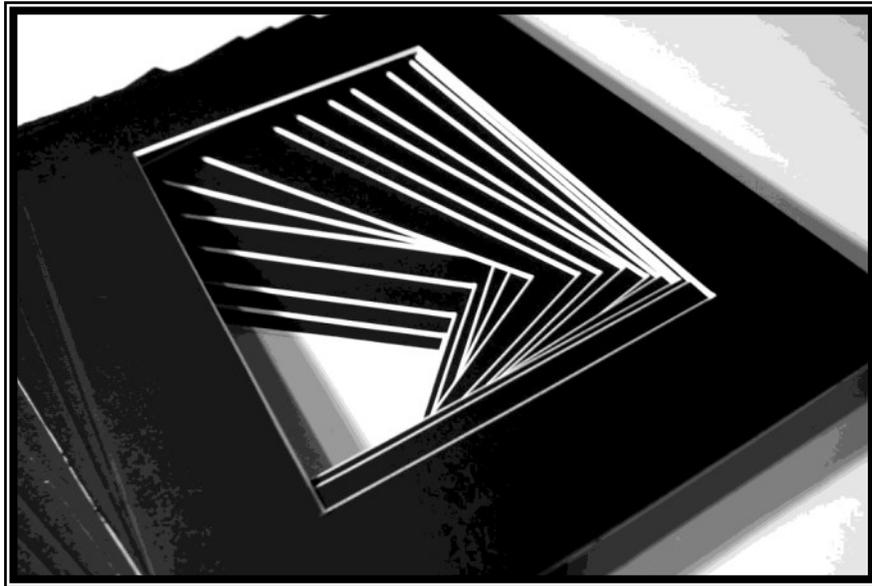


Cutting Mats

(without losing your mind or a finger)



Important items to have:

- Mat board (4-ply and 2-ply)
- Cutting surface
- Mat cutter
- Fresh blades
- Ruler
- Pencil
- Eraser
- Acid free tape
- Archival photo corners
- Scrap mat board
- Basic math skills
- Patience

Important things to know:

- Standard frame sizes:

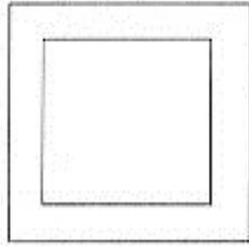
4x5	9x12	20x24	
4x6	10x13	22x28	36x48
6x8	11x14	24x30	40x60
5x7	12x16	24x36	48x60
8x10	14x18	26x32	48x96
8x12	16x20	30x40	Bold=popular
8.5x11	20x24	32x40	

Where to start?

Measure the image (the area you want to expose in the mat/frame):

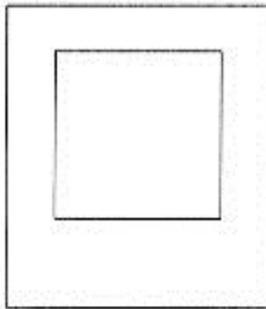


Let's say this doctor and nurse are printed on a piece of 11x14 paper but the image is **8.5x10.25**. That's what we care about, the image size. Now we need to consider the mat size.



Even-on-all-sides mat

Here are the two ways you can place your image in a mat. They are both fairly easy but the “even-on-all-sides” option is versatile if you plan to reuse mats.



This has extra width at the bottom border.

Mats with extra width at the bottom border are ‘weighted’ and typically used for fine prints/art works. Or for that super special photo of the family dog.

The other consideration...

It's nice to have some ‘breathing space’ around your image. Shoot for at least a 2” mat border on each side. For small, precious, fine art images, you may want to consider a larger border. It can be a matter of preference in some situations.

Our image is 8.5 x 10.25. By adding 2” **to each side**, we’ll want something 12.5 x 14.25 or larger. Looking at the frame sizes, let’s choose the 16x20 frame size.

Also, it’s what my institution has the most of.

Let's get our math on!



Here we take the length of the mat size: **20** inches
And subtract the length of the image: **10.25** inches

That's **9.75**. Now divide this number by **2**. Why? Because you need to know how much mat there should be on the **2 sides** of the image. It's **4.875**. Since you're going to be using a ruler, let's convert that **.875** to a fraction—don't worry, there's a chart below...

MAT BOARD SIZE: 16 X 20

IMAGE SIZE: 8.5 X 10.25

MAT SIDES: 4 7/8

MAT TOP AND BOTTOM: 3 3/4

$$20 - 10.25 = 9.75 / 2 = 4.875$$

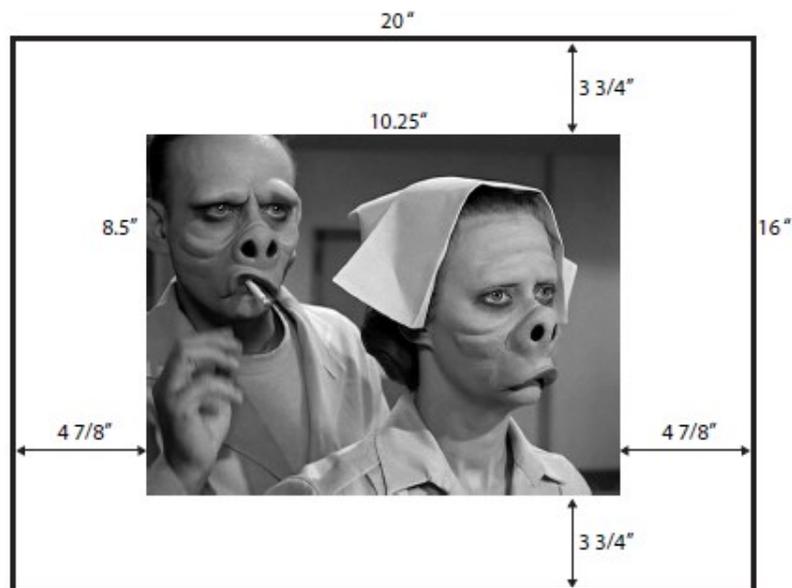
$$16 - 8.5 = 7.5 / 2 = 3.75$$

Fractions	Decimals	Percents	Fractions	Decimals	Percents
1/2	0.50	50%	1/6	0.16	16 2/3%
1/3	0.3	33 1/3%	1/8	0.125	12 1/2%
2/3	0.6	66 2/3%	3/8	0.375	37 1/2%
1/4	0.25	25%	5/8	0.625	62 1/2%
3/4	0.75	75%	7/8	0.875	87 1/2%
1/5	0.20	20%	1/10	0.10	10%
2/5	0.40	40%	3/10	0.30	30%
3/5	0.60	60%	7/10	0.70	70%
4/5	0.80	80%	9/10	0.90	90%

Now we take the height of the mat size: **16** inches
And subtract the height of the image: **8.50** inches

That leaves **7.5**. Now divide this number by **2**. This tells us how much mat we need on the top and bottom of the image. It's **3.75** (or 3 3/4 in ruler speak).

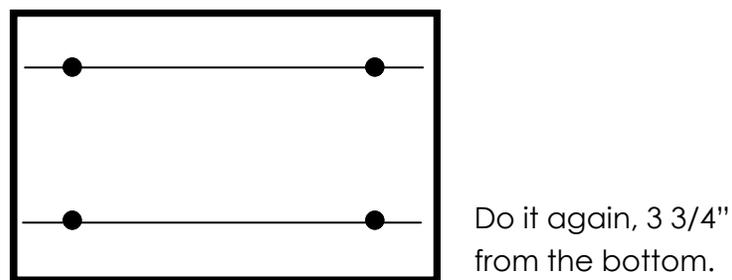
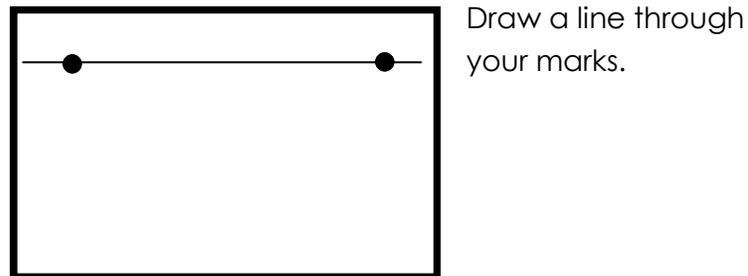
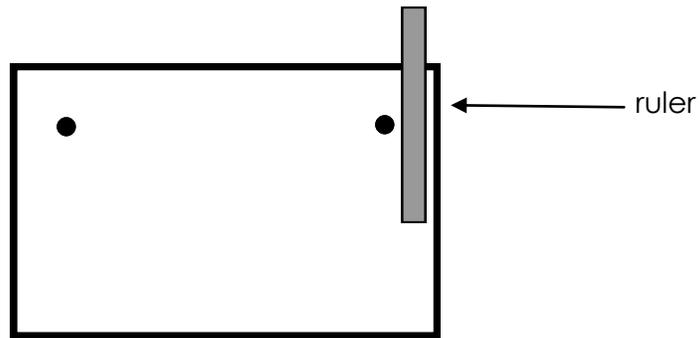
Here's how the framed image will look when complete (minus those numbers, of course).

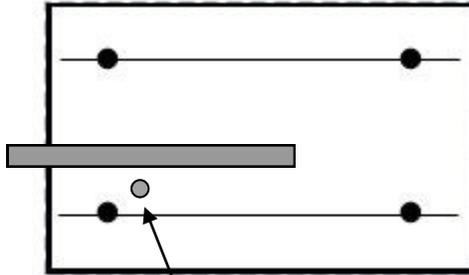


So much prettier!

Time to get physical! Sharpen your pencil, break out a ruler, and whip out your blade. Let's show this mat board who's boss...

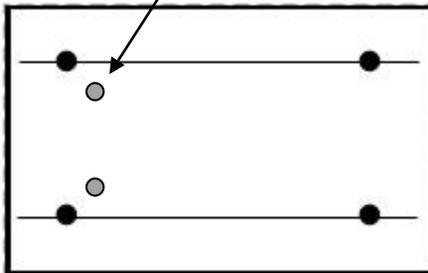
1. Cut your 4-ply mat board to the right frame size (16x20 here)
2. Figure out which side is the back side. This is the side you'll draw on (it will have printing on it or an embossed logo).
3. Take your ruler and measure 3 3/4" down from the top. Make a mark, scoot your ruler over and make another mark.



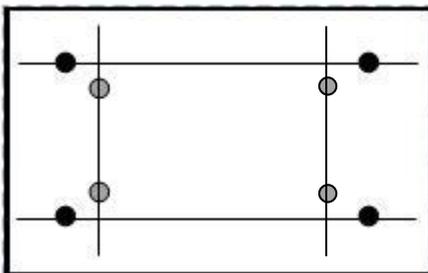
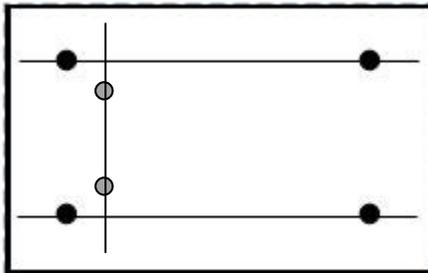


This mark is $4 \frac{7}{8}$ (from the side)

So is this one



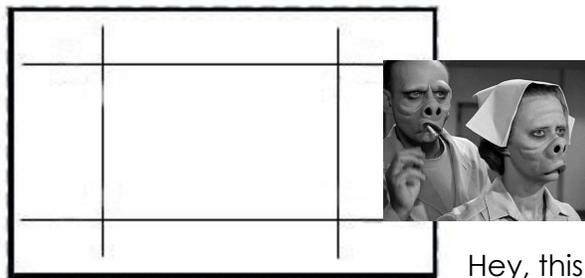
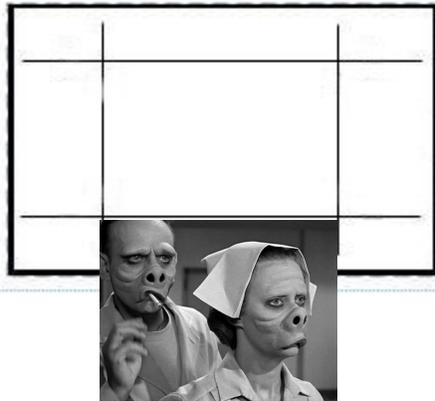
Now draw that line!



Now make marks and lines for the **2 sides** of your image. Pay extra special attention to mark the correct configuration. This is where mistakes are made. I know, it seems like it'd be easy...

And again on the other side.

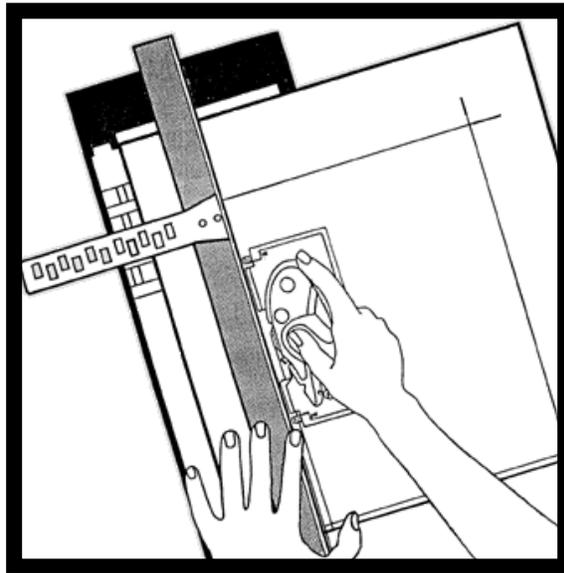
Let's double check our work. Take your print and eyeball it; see if it appears to fit within your marks.



Hey, this looks pretty good!

Congrats! The first hard part is over. Put down the ruler and the pencil, wipe your brow and let's move on.

This is a **basic** mat cutter. They come in basic, fancy, and super fancy. There is also a freehand way to cut that will cause both mental and physical pain. It is cheap but a price will be paid elsewhere.

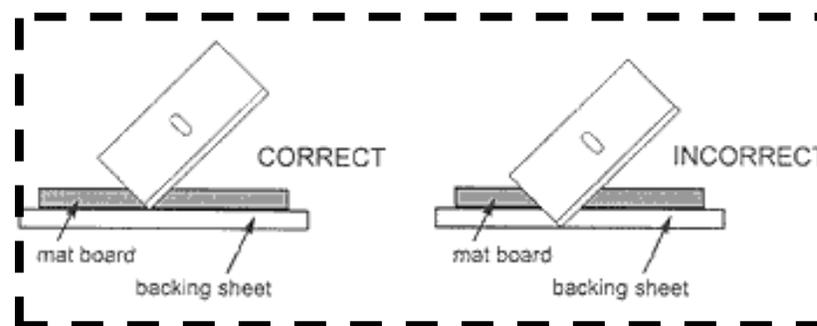
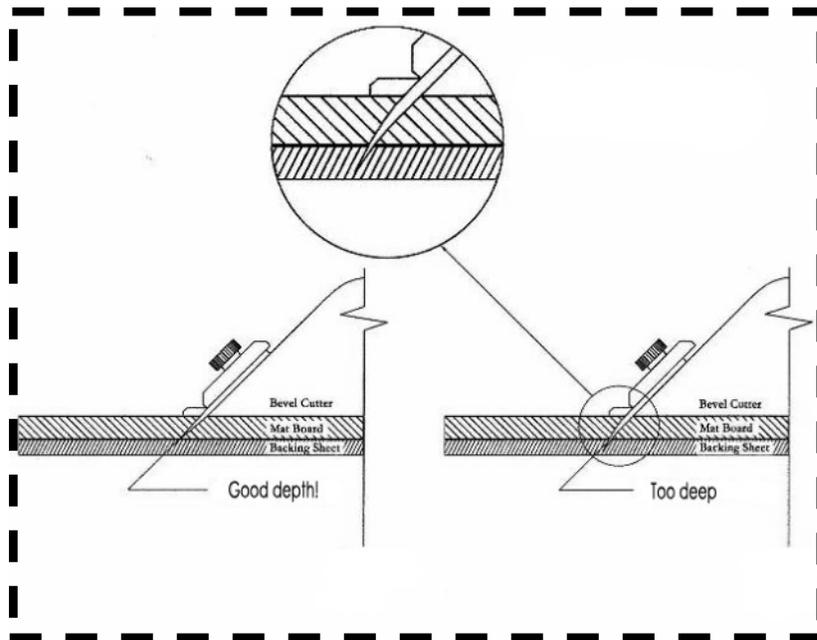


TIP: Position the mat cutter so you will be comfortable pulling the blade toward you using your dominant hand.

TIP: You will need to place a piece of scrap mat board down on the table of your cutter. This helps to 'cushion' the blade as it breaks through your nice mat board (helps to prevent tears and fuzzies).

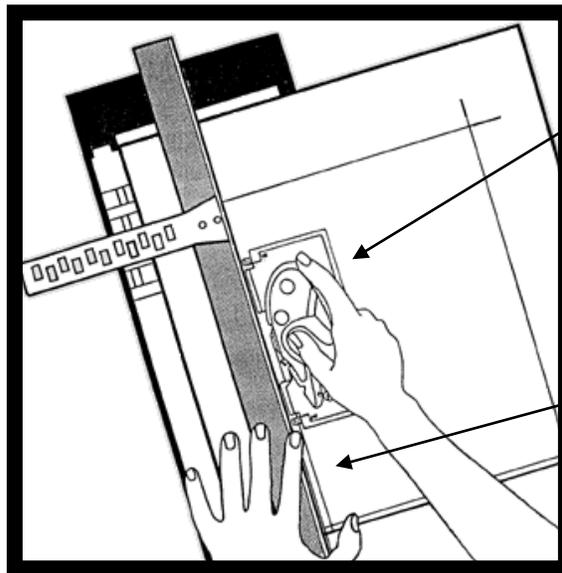
Go put in a fresh blade. Why make cutting harder than it already is? The blade will need to go all the way through your nice mat (obviously) but only deep enough to just skim the scrap 'cushion' board you laid underneath.

Here are two examples:



Yea, it's slight. But it can make some difference in getting a clean cut.

Ok, now we're ready to go. Notice from the illustration, you will be cutting from *inside of the window*. That is due to the 45 degree angle of the blade. This is another step where mistakes are made. It is no fun to flip over the mat to find out you've cut a backwards bevel!



Your cutter should be placed inside the drawn lines.

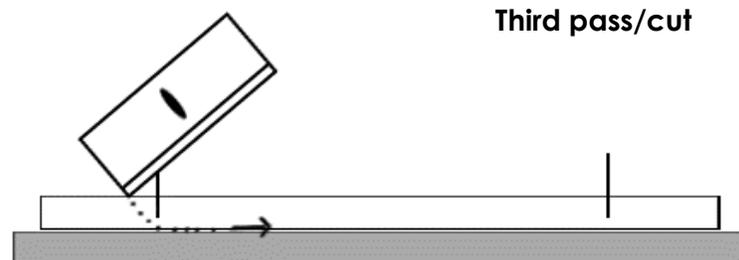
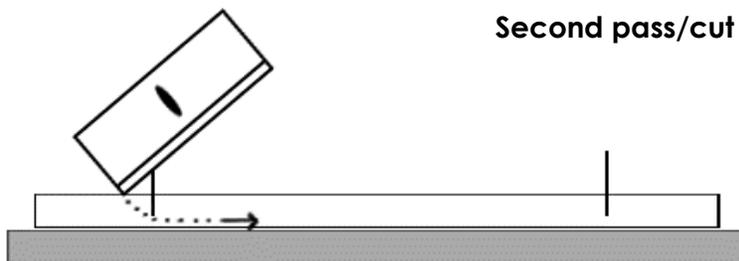
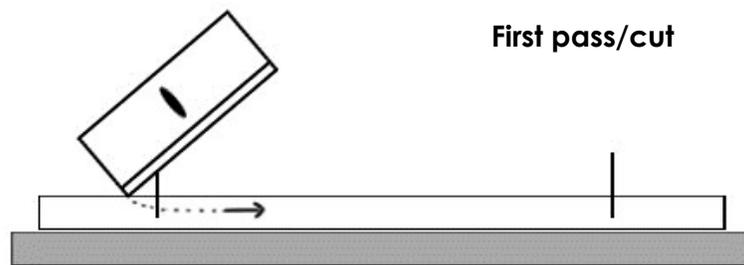
The guide of the mat cutter should be placed right along your drawn line.

Here's a cross-section of the mat board on top of a piece of 'cushion' board. The black lines are the measured points indicating the ends of the line you'll be cutting:

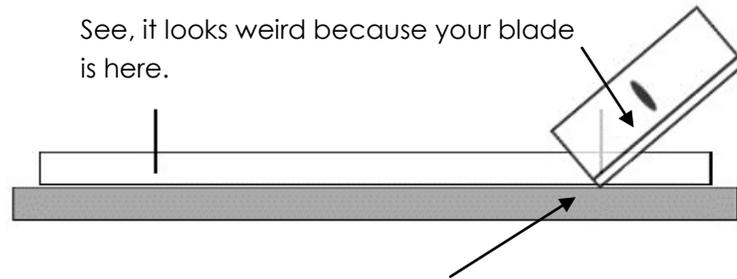


TIP: When cutting your mat lines, take 3 or 4 passes/cuts. Don't puncture all the way through on your first pass/cut. Take your time, breathe through it. Be the blade.

Now you're going to sweep the blade in to start your first pass/cut. Start the cut a little bit before your mark:



When are you done cutting? When it looks like you've gone too far (but have actually NOT gone too far. But you CAN go too far, so don't go too far).



But it's the **point** of the blade that matters. It should barely cross your end point mark.

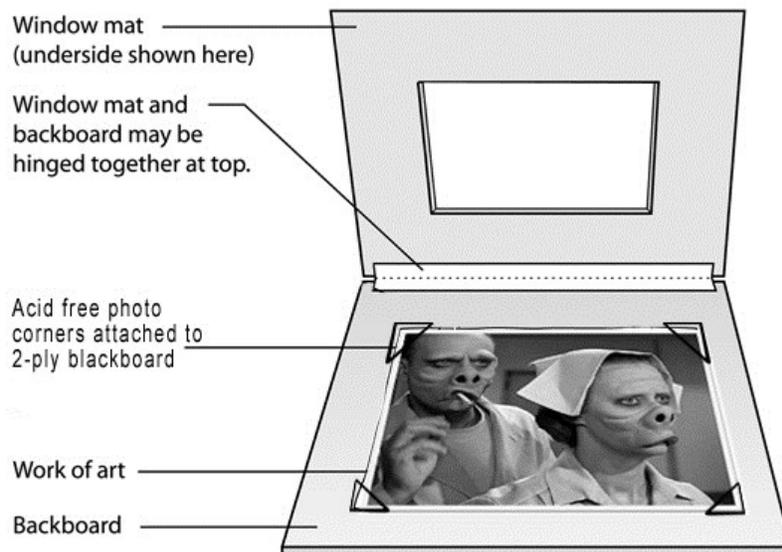
Remember you're cutting on the back of the mat so these over cuts don't matter much. Once you have done all 4 sides gently flip the mat board over. Hopefully that rectangle you cut will just fall out! If not, take a blade and gently cut at the corners until it lets go. Now you have a fancy, perfect mat!



Let's move on to protecting that document or photo.

This part is pretty easy and will give you a level of satisfaction on par with chocolate.

- Cut a piece of 2-ply board to the same size as your mat (16 x 20 here). This 2-ply piece is your backboard.
- Tape top edges of the boards together– see that illustration below.
- Lay the artwork on the backboard and close the lid (mat window).
- Adjust your artwork so that it fits within the mat window.
- Open the lid (mat window) and place photo corners at each corner of the artwork, securing them to the 2-ply.
- For additional protection, cut a piece of polyethylene to go over the artwork and under the mat window.



Notes: