


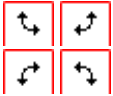















## TRANSFORMATION TIPS by Photoshop Mama

Here's the original graphic—the gradient rectangle with the words "Free Transform" left alignment, inside of the rectangle. See table below for all the effects that can be accessed with the Free Transformation command. **Shortcut: [Mac: Command T]. [PC: Control T]**. While the Transformation bounding box is active (handles still visible) the quality of the graphic may look pixellated; this is only a cache view and is not indicative of the final quality of the transformation you will see, once the Transformation has been committed and the bounding box disappears.



EFFECT	MENU NAME OR FUNCTION	CURSOR CLUES	SHORTCUTS/METHOD
	SCALE (PROPORTIONALLY LARGER)	type of scale cursor will automatically appear upon approaching a handle on the Transformation bounding box.  double 45° arrows	Hold SHIFT & drag outward on any corner handle
	SCALE (PROPORTIONALLY SMALLER)	type of scale cursor will automatically appear upon approaching a handle on the Transformation bounding box.  double 45° arrows	Hold SHIFT & drag inward on any corner handle
	SCALE (HORIZONTAL)	type of scale cursor will automatically appear upon approaching a handle on the Transformation bounding box.  double 180° arrows	Drag left or right on any middle handle on vertical sides

	<p>SCALE (VERTICAL)</p>	<p>type of scale cursor will automatically appear upon approaching a handle on the Transformation bounding box.</p>  <p>double 90° arrows</p>	<p>Drag up or down on any middle handle on horizontal sides</p>
	<p>ROTATE (ARBITRARY)</p>	<p>rotate cursor will appear when the mouse is a small distance away from the bounding box handles</p>  <p>curved double arrows</p>	<p>Drag in the desired direction for rotation when any curved double arrow appears</p>
	<p>ROTATE 90° CW (CLOCKWISE)</p>	<p>none</p>	<p>Access Contextual menu by: [MAC: CONTROL CLICK INSIDE BOUNDING BOX] [PC: RT. CLICK INSIDE BOUNDING BOX] Choose "Rotate 90° CW" from the contextual menu</p>
	<p>ROTATE 90° CCW (COUNTER CLOCKWISE)</p>	<p>none</p>	<p>SAME AS ABOVE Choose "Rotate 90° CCW" from the contextual menu</p>
	<p>ROTATE 180°</p>	<p>none</p>	<p>SAME AS ABOVE Choose "Rotate 180° CCW" from the contextual menu</p>

	SKEW (VERTICAL)	 gray arrow & vertical double arrow	[MAC: COMMAND OPTION DRAG VERTICAL HANDLE UP OR DOWN] [PC: CONTROL ALT DRAG VERTICAL HANDLE UP OR DOWN]
	SKEW (HORIZONTAL)	 gray arrow & horizontal double arrow	[MAC: COMMAND OPTION DRAG HORIZONTAL HANDLE LEFT OR RIGHT] [PC: CONTROL ALT DRAG HORIZONTAL HANDLE LEFT OR RIGHT]
	DISTORT	 gray arrow	[MAC: COMMAND DRAG CORNER HANDLE IN ANY DIRECTION] [PC: CONTROL DRAG CORNER HANDLE IN ANY DIRECTION]
	PERSPECTIVE ON VERTICAL	 gray arrow	[MAC: SHIFT OPTION COMMAND DRAG ANY CORNER HANDLE UP OR DOWN] [PC: SHIFT ALT CONTROL DRAG ANY CORNER HANDLE UP OR DOWN]
	PERSPECTIVE ON HORIZONTAL	 gray arrow	[MAC: SHIFT OPTION COMMAND DRAG ANY CORNER HANDLE LEFT OR RIGHT] [PC: SHIFT ALT CONTROL DRAG ANY CORNER HANDLE LEFT OR RIGHT]

Photoshop uses interpolation when you change the scale or orientation of a pixel element. Photoshop will use whatever method of interpolation checked in the General Preferences Dialog box. The default method is BiCubic. Performing multiple transformations and commits to the same pixel object will degrade the image quality for that element. However, some functions of the Transformation commands do not degrade the image; ie flip vertical, flip horizontal, rotate 90 cw, 90ccw, or 180. There is absolutely no degradation if transformations (single or multiple) are committed on vector shape layers or Live Type Layers. When performing a Transformation, most other functions are disabled until you Commit the transformation or Cancel it.

To Commit, do one of the following:

- a. Click the Checkmark in the top Options Bar
- b. Double Click inside the bounding box
- c. Click Return or Enter
- d. Click any tool from the Toolbox and a Dialog box will appear asking if you want to do this Transformation.

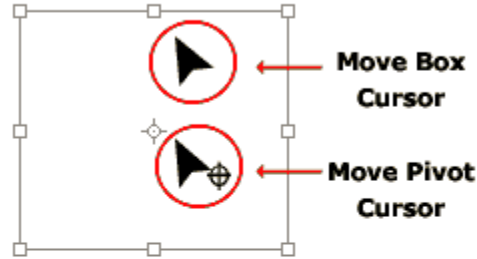
To Cancel, click the Cancel icon in the top Options bar or click the Esc key.

To Undo any committed Transformation go to Edit>Undo, immediately after. [Mac: Command Z], [PC: Control Z], or click on the state previous to the Transformation in the History palette.

Be aware of the cursor clues associated with the Transformation Box. You may reposition the entire element while the Transformation bounding box is active by placing your cursor inside of the box, but not on the center pivot point. To move the entire box, click and drag. Your cursor will be a solid black arrow. If you click and drag on the pivot point, your cursor will be a black arrow with a pivot icon next to it; this moves just that center pivot point to a new location but not the bounding box & element.

The top options bar contains a variety of helper buttons and fields. On the left is the Reference Point Location. You can change the pivot point, for rotations either by manually moving it or by simply clicking one of the 9 hollow handles in the helper icon.

### Free Transformation Bounding Box



### Top Option Bar Transformation Helpers

Type in desired Angle  
Click one of 9 locator handles for pivot point axis origin

° Rotation Angle

 Reference Point Location

Below are examples of various pivot point locations and the results. Using the Type tool "2" has a stroke and drop shadow style applied. The Reference Point locator and the degree field (typing 30°) in the top options bar were used to perform the transformations on a duplicate, in order to leave a frame of reference for the change. The solid filled handle on the locator indicates where I clicked and the point of axis for the pivot, which is the point around which the object is rotated. The red arrow is showing the corresponding handle on the bounding box as related to the clicked point on the locator icon. You can think of the result, as if you stuck a pin through the object at that point and then twirled it 30 degrees. While I only used 30 degrees for these samples, you can also type in negative degrees and the rotation would be counter clockwise. Any increment from 0 to 360 or 0 to -360 may be typed.

1.



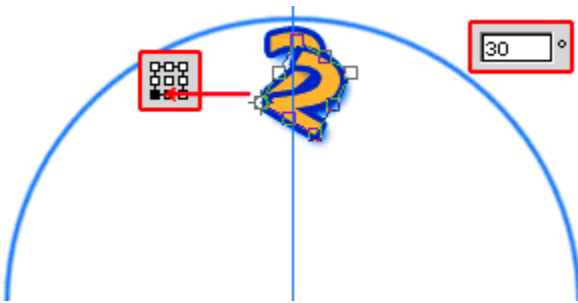
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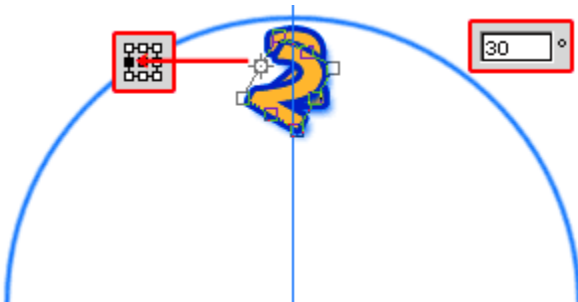
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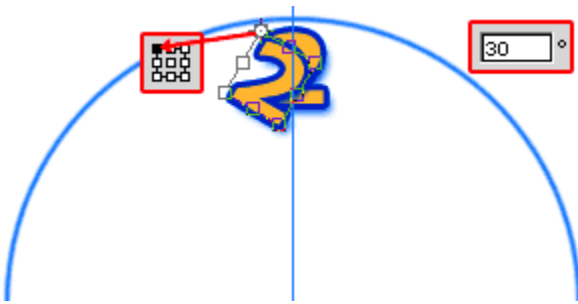
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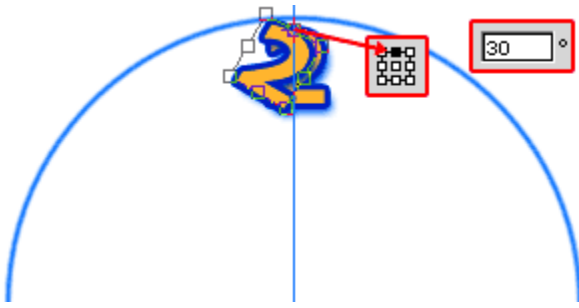
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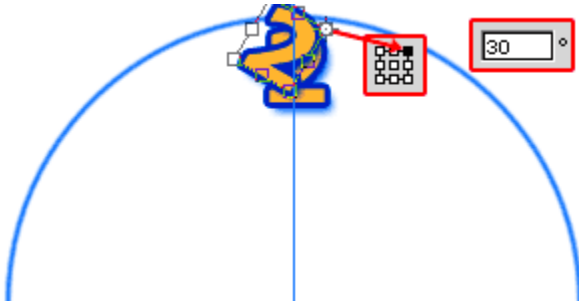
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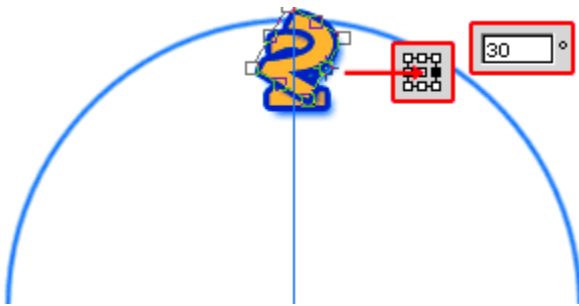
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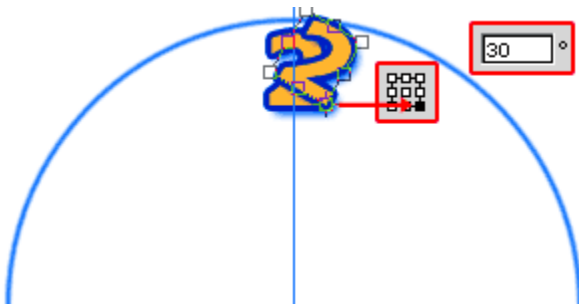
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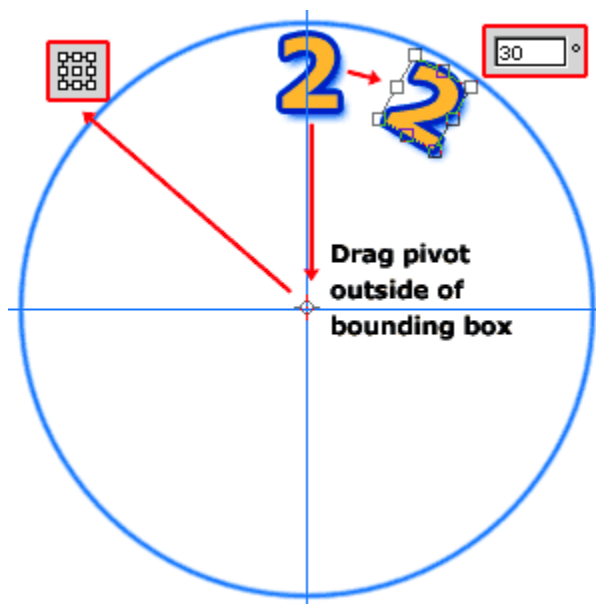
9.



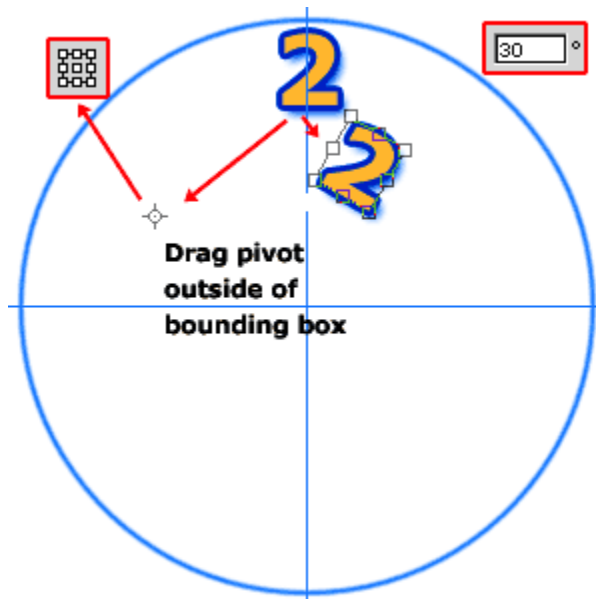
10.



11.



12.



#### CHALLENGE: Create a clock face

Create a square document. Drag guidelines to bisect the canvas vertically and horizontally. You can use either the Type tool or a Rectangle or Ellipse Shape for the clock time or tic markers. If using Type, make sure that your first number has the Center Alignment icon highlighted in the top Options bar. Place your first element at the top center of your document (see the "2" above). You want to duplicate this element using the power of another feature the Transformation Command offers. As you know pressing Command T, invokes the bounding box around the current layer...but if instead you press [Mac: Option Command T], [PC: Alt Control T], it will actually duplicate the layer, but you may not realize this until after you have changed the angle. A clock is a circle, a circle has  $360^\circ$ , there are 12 basic numbers or tics to a clock,  $360 \div 12 = 30^\circ$ . So now you know the increment of spacing you want for these 12 elements. But the pivot point would be the intersection of the guide lines. You want the numbers to rotate around this imaginary circle. (you could actually have an underlying layer that is a circle shape and use its center point as reference for dragging your horizontal and vertical guides.

1. With your top centered element layer highlighted, press [Mac: Option Command T], [PC: Alt Control T]. Drag the pivot point from the bounding box in your canvas to the guide intersection. Type "30" in the degree field in the top Options bar. You should see your element rotate in similar fashion to example 11 above.
2. Commit this transformation and immediately press the following shortcut command. [Mac: Shift Option Command T], [PC: Shift Alt Control T]. Keep all your fingers pressing the modifier keys, let up only on the "T", then back down on the "T" nine more times to complete the circle with your element.

3. If you used a live Type layer, you can go back to each layer and use Type tool to edit the number.

**Option (Alt) + Transform Command = Duplicate.**

**Shift + Transform Command = Transform again.**

**Shift Option (Alt) + Transform Command = Duplicate & Transform again on the dup.**

You can use this method to create designs. Make a set from linking your element layers and choose "make set from linked" from the Layers palette flyout menu. By duplicating the "set" from the layers palette flyout tab, you can create several concentric designs very quickly. Using Transform (Command T) on the whole new set by manually scaling inward, while holding the Shift and Option keys (Shift constrains, Option transforms from the center). When you make a duplicate set from this, all you have to press is Shift Option Command T, for the new set to move inward, rotate (15°) and scale. See below.

