

# AI BOOTCAMP

# Clockface

Make sure your Smart Guides are turned on for this exercise. (Command-U will toggle them off and on.)



1. Draw a circle. Double-click the scale tool, and create a **copy** that is 2% of its size.



2. Choose the rectangle tool. Zoom in closely to the center of the circles. Draw from the center (see the word “center” when you’re in position) and create a small square, larger than the tiny circle.

(If you need to align, select the new rectangle and the larger circle, then click the circle again WITHOUT the Shift key. It is now the “key” object. Use the align buttons in the Options bar to align the horizontal and vertical centers.



Align by ...

Aligning

Distributing

3. Shift-drag the square to the “12” position. Make it a deeper than a square.



4. Use the white arrow to select the line segment between the bottom two points.



5. Hit S to select the scale tool, and drag inward, making the bottom narrower than the top.



12

6. Choose the Type tool and type a 12. Move it to the top, under the marker you just made. In the Character panel, adjust the baseline shift of the 12 so that it is at the midpoint of the number. Select all and align the vertical axes to the center.



7. Select the 12, the mark, and the outer circle. Double-click the rotate tool, enter 30° and hit **Copy**. Deselect the big circle, then hit command-D until the clock face is filled. Change the numbers to 1-12. Delete the second big circle.

8. Select all the numbers except the 12. Pull down Object > Transform > Transform Each. Apply a rotation of 30, hit OK. Deselect the “1”, hit Command-D, deselect the “2”, Command-D, and so on until all the numbers are upright.



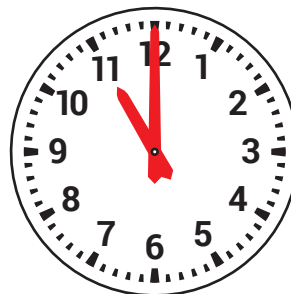
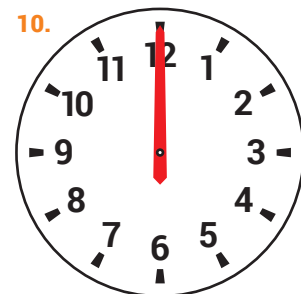
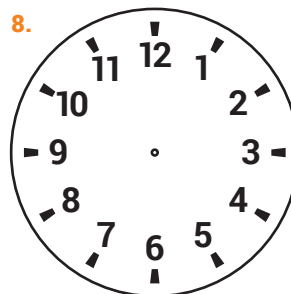
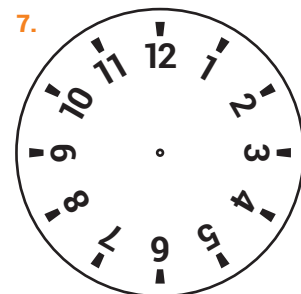
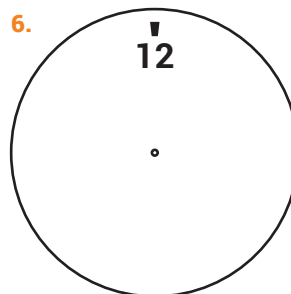
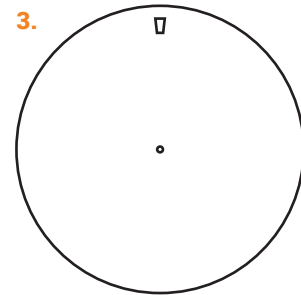
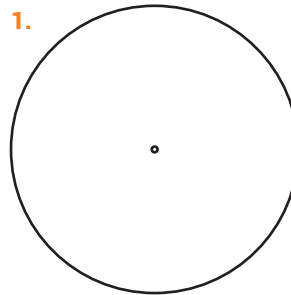
9. Zoom in tightly on the small, central circle. Draw a small square, as you did in Step 3. Grab the top line of the square, and pull it up to the 12 to create the long hand. Scale the top as you did the marks, so that the hand shape is narrower at the top and wider at the bottom.



10. Pull down Object > Path > Add Anchor Points. Select the top and bottom points, and use the scale tool to adjust them so that the top and bottom of the hand are sharp points (as shown). Color the hand red. Cut the hand and paste behind the tiny circle (Command-X, select tiny circle, Command-B).

11. Command-F to a second hand in front to make the hour hand. Hit Command-Shift-Option-2 to lock everything else. Lasso the top (white arrow) and drag the points down.

12. Command-Option-2 to unlock everything. Select the hour hand and outer circle, and rotate it using the rotate tool. This time, don’t copy.



**DONE!**

**AND:** Try changing to different times, and try adding intervals for the minutes.

# Dartboard

Start this second illustration on its own artboard.

1. Start by drawing a fairly large circle in the center of your artboard. (You can draw this against an image of a dartboard if you wish, or just create this from scratch.)



2. Tap an S on your keyboard to select the Scale tool. The light blue “target” will be in the center of your selected circle.

This is the origin point of your scale, and it will automatically be placed in the center of the selection. You can click somewhere else to change this origin point, but don't for this exercise – we want to scale from the center.

3. Move your mouse away from the center; the farther away you begin to drag, the more control you'll have over resizing the element. Click down, and drag back toward the center of the circle.

4. As you drag, hold down both the Shift key (to constrain the shape to a perfect circle) and the Option key (to make a copy). When the circle is the same size as the outer circle of the dartboard, release the mouse. *Be sure NOT to release the keys first!*

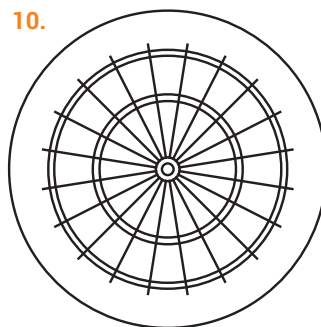
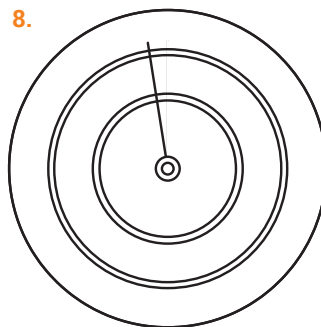
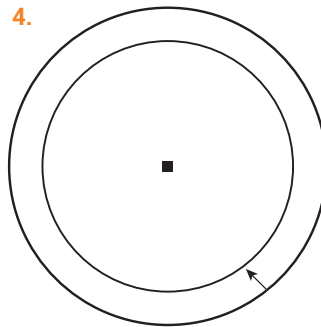
5. Repeat steps 3 and 4 until you have all the necessary circles for the dartboard.



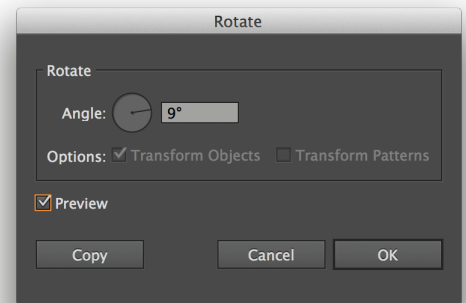
6. Draw a straight line from the top of the “25 point” circle (as in scoring for darts) to slightly beyond the first copied circle.

7. Select both this line and the outer circle, and double-click the Rotate tool.

8. You'll have to rotate this line half the amount of degrees of each wedge on the board. There are 20 wedges, and 360 degrees in a circle, so each wedge is 18 degrees. Half of that number is 9. Enter this in the Rotate dialog box.



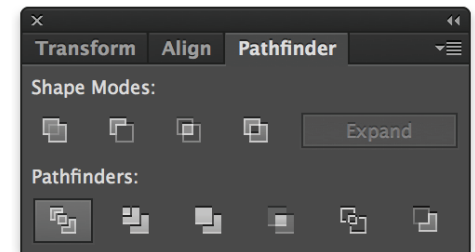
DONE!



9. With the line and outer circle still selected, double-click the Rotate tool again. This time, enter “18” as the angle, and hit Copy.

10. Hit or hold down Command-D until you have all the wedges drawn.

11. Select all your lines, and copy them (Command-C).



12. Call up the Pathfinder panel, and click the Divide button.

13. Recolor all the wedges to match the reds/greens/blacks/tans of a regulation dartboard.

14. Paste in front (Command-F). Your lines are back in place. Group the lines (Command-G). Use the Strokes panel to make the caps rounded. Copy, and paste in front again.

15. Create an inline effect with a lighter stroke (in color and weight). Add the numbers around the outside of the board.

# Table

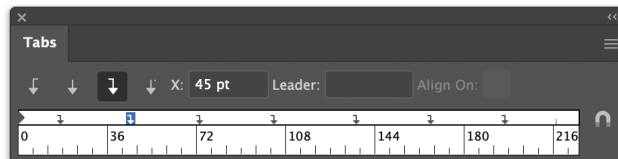
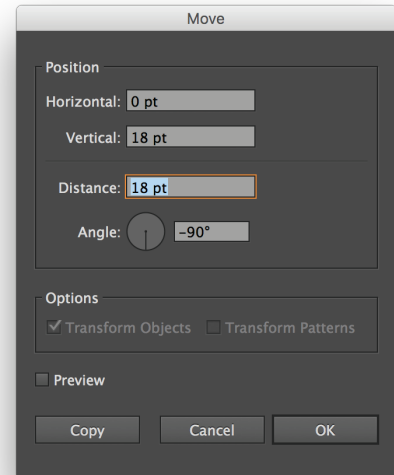
This simple exercise shows you how to create attractive and readable tabular data.

1. We need some data for this; download the epl-table.xls file from Canvas > Files > Course Material.
2. Select just the team names' column and copy.
3. On a third artboard in your Illustrator document, select the Type tool and click down to start a new point text entry. Paste your copied text.
4. Use the Properties panel to select a typeface and size for this text. Change the leading, too: in tabular data, the default leading will be too tight.
5. Add a line to divide the Liverpool row from Man City's in the table. Use the Strokes panel to make this line a 1-point, gray, dotted line.
6. To make sure your lines are in the right location, copy each one the exact distance of your leading. For example, if you have 18 points of leading between each line, you can move the initial dividing line exactly 18 points down. To do this, select the line, right-click and pull down to Transform, then over to Move (or Command-Shift-M). Enter the number for the distance, and hit Copy. (Positive values move down, negative values move up.) Hit Command-D to complete the table. Do not add a line below the last-place team's row.
7. From Excel, copy all the numbers columns.
8. In Illustrator, option-shift-drag the list of team names to make a "live copy" to the right. Select all the text in this second text area, and paste in your tabular data.
9. Call up the Tabs panel (Command-Shift-T) with your new text selected. Adjust the location of the tabs so that the numbers read clearly.
10. Copy the header row from Excel. Option-shift drag the text from your table, dragging upward. Paste in the copied header row. Change the text so that it's bolder, perhaps compressed, and add a heavier line beneath this row, so that the table has a clear categories row.

3. Liverpool  
Manchester City  
Manchester United  
Chelsea  
Leicester City

4. Liverpool  
Manchester City  
Manchester United  
Chelsea  
Leicester City

6. Liverpool  
Manchester City  
Manchester United  
Chelsea  
Leicester City



9. Liverpool	32	3	3	85	33	52	99
Manchester City	26	3	9	102	35	67	81
Manchester United	18	12	8	66	36	30	66
Chelsea	20	6	12	69	54	15	66
Leicester City	18	8	12	67	41	26	62

10. EPL TABLE	W	D	L	GF	GA	GD	PTS.
Liverpool	32	3	3	85	33	52	99
Manchester City	26	3	9	102	35	67	81
Manchester United	18	12	8	66	36	30	66
Chelsea	20	6	12	69	54	15	66
Leicester City	18	8	12	67	41	26	62

# Timeline

Lastly, we will create a timeline for United Airlines. This exercise allows for a little more creativity on your part; the instructions below will get you started, but the look of your final graphic will have considerable design input from you.

1. Open the UNITED.ait file from your BOOT CAMP folder. This file has several text boxes, with each entry separated into its own box.

2. Style the text however you see fit. Use the Character Styles panel to create a specific look for the years that begin each entry.

We will create a timeline for this information that is exactly 24 picas wide. This will include the text, an actual line of time, and which ever images you choose to use.


3. Start by selecting your Rectangle tool. Move your cursor to the middle of the page and option-click. This will call up a dialog box that allows you to specify an exact size for your rectangle. Make it 24 picas (24p) wide, and 100 picas deep.

4. Turn this into a guide by hitting Command-5. Position it, and lock your guides by hitting Command-Option-; (semicolon).

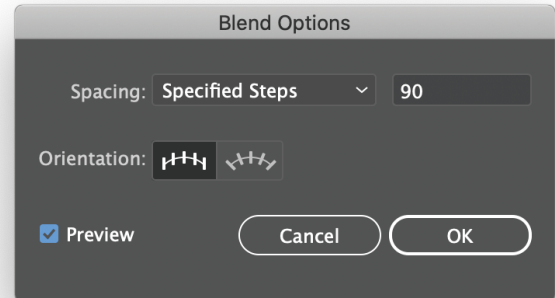
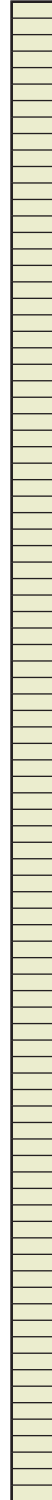
5. Add a headline and explainer at the top: point text for the headline, and a box for the explainer. Style them both.

6. Draw a narrow box on the left edge of the graphic, running from the explainer to the bottom. This will hold the years.

7. Use the white arrow tool to select the top and bottom line segments on your box. Command C to copy them, and paste in front (Command-F). Our timeline will begin in 1930 and go through 2020. How many small boxes will we then need for this?

 8. Use the Blend tool to click on a top point and bottom line, which will blend your two lines. Be sure to click on "like" points (either right or left).

9. Pull down Object to Blend, and over to Blend Options. Change the number so that you would have the exact number of steps needed to create the number of boxes you need.



10. Pull down Object > Blend again, and this time over to Expand.

11. Use the white arrow tool to select any two adjacent horizontal lines. Call up the Transform panel, and copy the height value. This will become the leading for your years text.

1930

1931

1932

1933

1934

1935

1936

1937

1938

1939

1940

1941

1942

1943

1944

1945

1946

1947

1948

1949

1950

1951

1952

1953

1954

1955

1956

12. Click with the Type tool to start a new Point text entry. Start with 1930. Change the typeface and size so that it will fit into the years box you made just now. Highlight the leading area, and paste in your copied value. You could type in all the years at this point, though Excel would allow you to do this a little quicker!

13. Once you have the timeline drawn, You can begin to move the text boxes to the appropriate location on the line. You will have to find a way to connect this type to the appropriate year. Try using the Strokes panel, adding an "arrow-head" of your choice to the end of each path.

The rest of this exercise is more of a design task than one that would help you learn Illustrator techniques; feel free to use any of the Images in the UNITED folder to complete your graphic.

Be sure to add the source and credit, too!