1. We start with a corner rectangle with top and bottom symmetric about the x axis and 2 vertical and 1 horizontal center lines and dimensioned as shown.

2. Draw and locate a dimensioned circle on the vertical center which is drawn through the ORIGIN.

3. Under Linear Sketch Pattern, select Circular Sketch Pattern and then click on the circle. Notice that the sketch is **Fully Defined** but when we accept the patterning.......
CENTER SKETCH PATTERN DEMO

4. ... the sketch now indicates that it is Under Defined and as shown below .....  

5. ... and the newly created circles can be moved!  

6. To resolve the Under Defined issue, click on Display/Delete Reference and select Fully Define Sketch.
7. Then select 'All entities in sketch' and click on Calculate and accept.

8. The sketch is now Fully Defined.

9. Exit the sketch and the drawing will appear normal color as shown.
1. Again we start with a corner rectangle with top and bottom symmetric about the x axis and 2 vertical and 1 horizontal center lines and dimensioned as shown.

2. Draw and locate a dimensioned circle on the vertical center line near the rectangle’s right edge and located as shown. Draw a POINT on the same vertical line and locate as shown. This POINT is the center of the Circular Sketch Pattern.

3. Under Linear Sketch Pattern, select Circular Sketch Pattern and then click on the circle. Notice that the sketch is Fully Defined and SolidWorks has placed the center of the pattern at the ORIGIN which is the default.
4. With the mouse, grab the point of the large gray arrow and pull it to the desired center, but when we accept the patterning....... 

5. the sketch now indicates that it is Under Defined and as shown...

6. ... and the newly created circles can, as shown earlier, be moved!
7. To resolve the Under Defined issue, click on Display/Delete Reference and select Fully Define Sketch.

8. Select 'All entities in sketch' and click on Calculate and accept. The sketch is now Fully Defined.

9. Exit the sketch and the drawing will appear normal color as shown.
CENTER SKETCH PATTERN DEMO

DON’T WANT TO PATTERN??

- You could add another horizontal center line, dimension it’s location, draw the 3 desired circles on the center lines, make them equal and symmetrical about center lines and finally locate them as shown below, BUT ....

... what if you had either of the 2 patterns shown below about either the ORIGIN or another point??

Sometimes you can be forced to use Center Sketch Patterns!