## **2D SHAPES**

Instructions: Use the following dimensions and specifications to draw shapes using picas and points for width and height.

## SIMPLE SHAPES

1. Draw a perfect 3" square.

2. Draw a rectangle with width of 7" and height 3".

3. Using the 7"x3" rectangle, draw a line centered horizontally across the rectangle. Don't guess at the middle; use math and conversions to find the center.

4. Using the same 7"x3" rectangle, draw a line centered vertically through the rectangle. Don't guess at the middle; use math and conversions to find the center.

5. Draw an oval of 0p132 and 0p256. You will need to first convert the points to picas and points, then draw the shape.

6. Draw an octagon (8 sided shape) where each line segment is 48 points (convert to picas), and the width and height equal 0p63 (convert to picas).

7. Draw a heart with a width of 2.4" x 3.6". The width should be the dimension of the widest portion of the heart, and the height is the top of the tallest portion to the bottom tip of the heart.

8. Draw a triangle 0p72 wide at the base, and 0p84 high, with the triangle offset from the left side by 0p18 picas. The triangle will not be symmetrical.



## SERIES OF SHAPES

9. Draw three rectangles, each 3p0 wide and 4p0 tall. Each rectangle needs to be 1p0 distance from the next.

10. Draw four circles, two on top of the other two. Each circle is 2" round, and needs to be 0p6 distance from each other.

11. Draw a Venn Diagram using three overlapping circles. Each cirlce needs to be 3p15 wide and 3p15 tall. Each circle should overlap with each other 0p6 only. Each circle needs to be connected to the other two, with one circle on top, two circles on bottom.

12. Draw three triangles, each with a base of 0p30, and height of 0p30. For the first triangle, the bottom will be 0p30 as the base. For the second triangle, the top will be 0p30 as the base. For the third triangle, the bottom will be 0p30 as the base. Each triangle will be 0p12 distance from each other. Make sure for these triangles that the point is centered with the base.

13. Draw a rectangle 0p288 wide, and 0p192 tall. Inside the rectangle, draw the most 0p72 squares as you can. You may or may not have extra space left. The squares should be touching with no points or picas between them, and should be touching the sides of the rectangle. Squares cannot overlap each other. To distinguish your squares, color each square a different color.