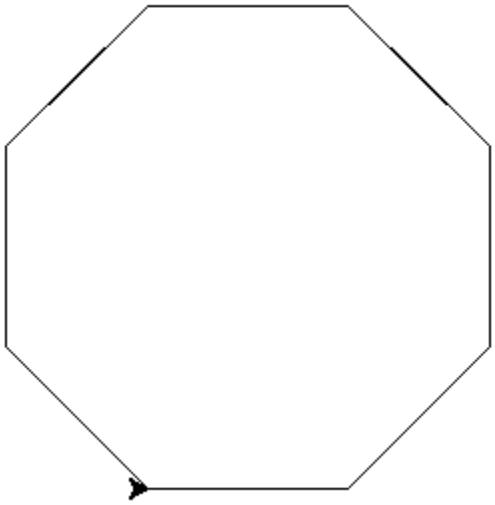
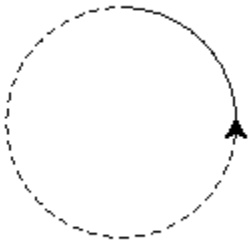
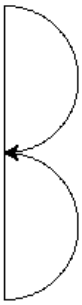
1. Draw a regular octagon.



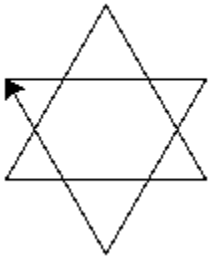
2. Draw a circular arc of 90° (i.e. a quarter circle) of radius 100.



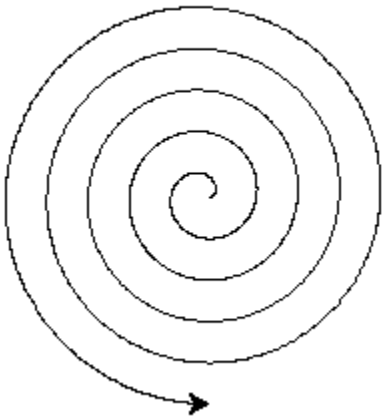
3. Draw the letter B. Assume both curves to be semi-circles



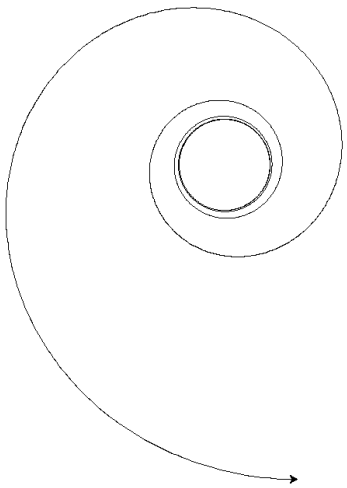
4. Draw a six-cornered star.



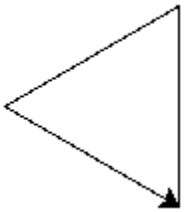
5. Draw a spiral, like so:



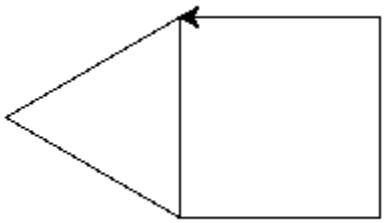
6. Bonus: Draw the exponential spiral



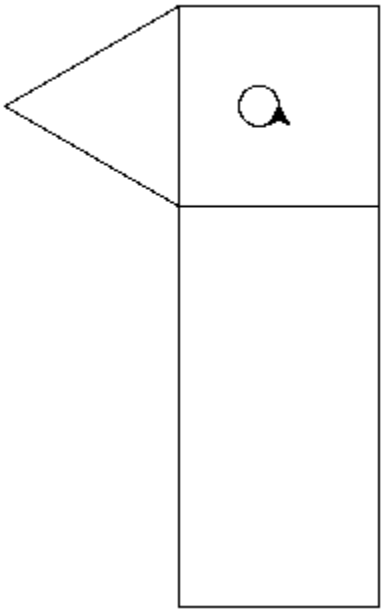
7. Draw a rotated equilateral triangle so that one of the edges is perpendicular to the X-Axis



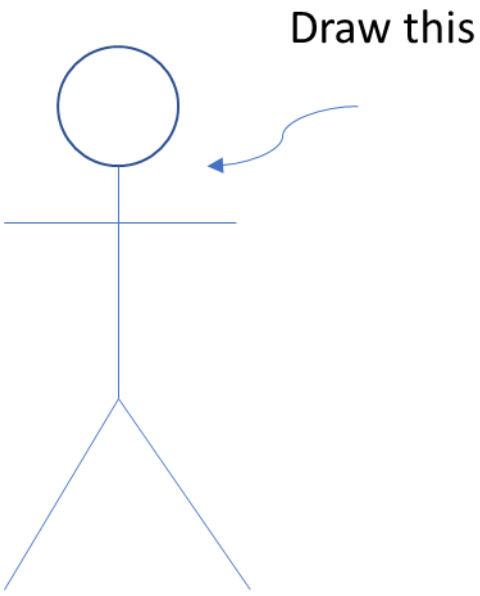
8. Draw a rotated equilateral triangle and a square next to it.

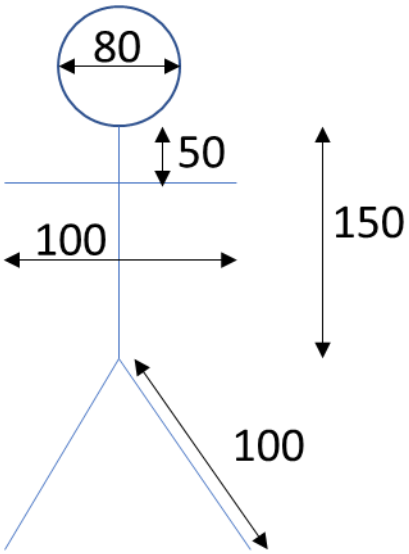


9. Draw this figure

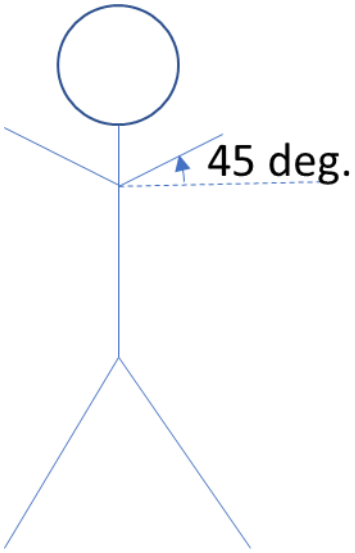


10. Draw the human stick figure.





11. Draw the human stick figure with the hands moved to the shown position



12. This is a long question, so pay attention. We have seen several ways to draw circles. Another way to draw a circle is to use the following equations:

$$x = Rt$$

$$y = \sqrt{\{1 - t^2\}}$$

For this, the code can be written as:

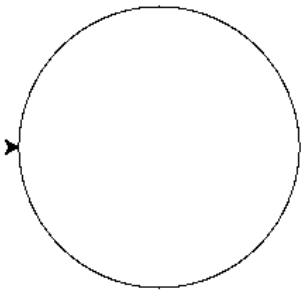
X_position = radius * t

Y_position = radius * math.sqrt(1 – t * t)

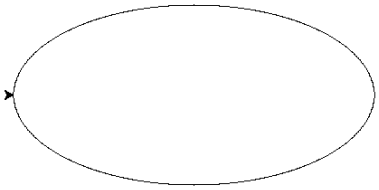
Here "t" is a variable whose value is changed first from -π to +π and then again from +π to -π.

The whole code can be written as show below (as well its output):

```
from turtle import *
import math

pu()
goto(-100, 0)
pd()

for T in range(-314, 315, 1):
    t = T / 314.0
    x = int( 100 * t )
    y = int( 100 * math.sqrt(1 - t * t) )
    goto(x, y)


for T in range(314, -315, -1):
    t = T / 314.0
    x = int( 100 * t )
    y = -int( 100 * math.sqrt(1 - t * t) )
    goto(x, y)


exitonclick()
```



Change the code, so that you can get an ellipse (oval), like so:



13.Draw the following text with turtle.