# Exercise 4:

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| 4.1:  from turtle import \*  bgcolor("lightgreen") #Set the windown background color  color('pink', 'pink')  def draw\_square():  for i in range(4):  fd(20)  left(90)  def ex1(n):  for i in range(n):  draw\_square()  penup()  fd(40)  pendown()  begin\_fill()  ex1(5)  end\_fill() | 4.2:  from turtle import \*  bgcolor("lightgreen") #Set the windown background color  color('pink', 'pink')  def draw\_square(m):  for i in range(4):  fd(m)  left(90)  def ex2(n):  m = 20  for i in range(n):  draw\_square(m)  penup()  right(135)  fd(13)  left(135)  pendown()  m += 20    ex2(5) |
| 4.3: (does not run, cant find why)  from turtle import \*  bgcolor('lightgreen')  color('pink')  def draw\_poly (t, n, sz):  t = Turtle()  for i in range (n):  t.fd(sz)  t.left(360/n)    draw\_poly(tess, 8, 50) | 4.4:  from turtle import \*  bgcolor('lightgreen')  color('blue')  speed (-1)  def draw\_square():  for i in range (4):  fd(100)  left(90)  def draw\_pattern(n):  for i in range (n):  draw\_square()  left(18)  draw\_pattern(20) |
| 4.5 a):  from turtle import \*  bgcolor('lightgreen')  color('blue')  speed (-1)  def draw\_pattern(n):  m = 5  for i in range (n):  right(90)  fd(m)  m += 2  draw\_pattern(100) | 4.5 b): not exactly follow the requirement  from turtle import \*  bgcolor('lightgreen')  color('blue')  speed (-1)  def draw\_pattern(n):  m = 5  for i in range (n):  for j in range (4):  right(90)  fd(m)  m += 4  left (5)  draw\_pattern(100) |
| **4.6:**  from turtle import \*  bgcolor('lightgreen')  color('blue')  t= Turtle()  def draw\_poly (t, n, sz):  t = Turtle()  for i in range (n):  t.fd(sz)  t.left(360/n)  def draw\_equitriangle (t,sz):  draw\_poly(t,3,sz)  draw\_equitriangle (t, 50) | **4.7:**  def sum\_to(n):  """Return the sum of all interger number up to and including n"""  S = 0  for i in range (n+1):  S += i  print(S)  sum\_to(4)  **4.8:**  def area\_of\_circle(r):  """Return the area of a circle of radius r"""  area = 3.14 \* r \* r  print(area) |
| **4.9:**  from turtle import \*  def draw\_a\_star(n):  left(30)  for i in range(5):  fd(n)  left(144)  draw\_a\_star(100) | **4.10:**  from turtle import \*  def draw\_a\_star(n):  for i in range(5):  fd(n)  left(144)  def ex10(m,n):  for i in range(m):  draw\_a\_star(n)  penup()  fd(350)  right(144)  pendown()  ex10(5,100) |

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| *http://www.bestappsforkids.com/wp-content/uploads/2012/04/save-turtle.png* | ***Turtle exercise*** |

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| 1.  from turtle import \*  def draw\_square(l, c):  color(c)  for i in range(4):  fd(l)  left(90)  draw\_square(100,"red") | 2. |
| 3. Giống 4.9 ở trên  from turtle import \*  def draw\_star(x,y,n):  setposition(x, y)  for i in range(5):  fd(n)  left(144) | 4. |

Explain the random.randint(…) statement, what it is, and how to use it?

* This function return a random integer N such that a <= N <= b.

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| http://images.8tracks.com/cover/i/001/358/131/7357.original-3735.jpg?rect=0,29,289,289&q=98&fm=jpg&fit=max&w=100&h=100 | ***Serious exercise*** |

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| 5.  def remove\_dollar\_sign(s):  for letter in s:  if letter == "$":  s=s.replace(letter,'')  print(s)  remove\_dollar\_sign() | 6.  In ra khong co $ nhung van bi keu la co bug =( |
| 7.  def extract\_even(integer\_list):  new\_list=[]  for num in integer\_list:  if num % 2 == 0:  new\_list.append(num)  print (new\_list) | 8.  Your function is correct |