

7. # Draws an egg figure.

```
def main():
    print("  _____")
    print(" /           \\")
    print("/           \\")
    print("-\"'-\"'-\"'-\"'-\"'-")
    print("\\           /")
    print(" \\_____ /")
```

8. # Draws several egg figures.

```
def main():
    draw_egg()
    draw_egg()
    draw_bottom()
    draw_top()
    draw_line()
    draw_bottom()

def draw_egg():
    draw_top()
    draw_bottom()
    draw_line()

def draw_top():
    print("  _____")
    print(" /           \\")
    print("/           \\")

def draw_bottom():
    print("\\           /")
    print(" \\_____ /")

def draw_line():
    print("-\"'-\"'-\"'-\"'-\"'-")
```

9. # Draws two rocket ship figures side-by-side.

```
def main():
    print_top()
    print_square()
    print_label()
    print_square()
    print_top()

def print_top():
    print("  /\    /\    /\")
    print(" /  \    /  \    /  \")
    print("/    \    /    \    /    \")

def print_square():
    print("+-----+ +-----+")
    print("|         | |         |")
    print("|         | |         |")
    print("+-----+ +-----+")

def print_label():
    print("|United| |United|")
    print("|States| |States|")
```

10. # This program prints a college "fight song" with verses and repetition.

The code uses functions for structure and to remove redundancy.

```
def main():
    go_team_go()
    print()
    big_verse()
```

```

big_verse()
go_team_go()

def go_team_go():
    print("Go, team, go!")
    print("You can do it.")

def big_verse():
    go_team_go()
    print("You're the best,")
    print("In the West.")
    go_team_go()
    print()

```

11. # This program prints a pattern of starry figures.

```

def main():
    print_figure1()
    print()
    print_figure2()
    print()
    print_figure3()

def print_figure1():
    print_horizontal_bar()
    print_x()

def print_figure2():
    print_horizontal_bar()
    print_x()
    print_horizontal_bar()

def print_figure3():
    print(" *")
    print(" *")
    print(" *")
    print_figure1()

def print_horizontal_bar():
    print("*****")
    print("*****")

def print_x():
    print(" * *")
    print(" *")
    print(" * *")

```

12. # This program prints a pattern of figures such as eggs and stop signs.

The code uses functions for structure and to remove redundancy.

```

def main():
    egg()
    print()
    egg()
    line()
    print()
    stop_sign()
    line()
    print()

def egg():
    egg_top()
    egg_bottom()

def egg_top():
    print(" _____")

```

```

print(" /      \\")
print("/      \\")

def egg_bottom():
    print("\\      /")
    print(" \\_____/")

def stop_sign():
    egg_top()
    print("|  STOP  |")
    egg_bottom()

def line():
    print("+-----+")

```

Chapter 2

```

1. number = 1
   increment = 3
   for i in range(1, 11):
       print(str(number) + " ", end="")
       number = number + increment
       increment = increment + 2
   print() # to end the line

2. n1 = 1
   n2 = 1
   print(str(n1) + " " + str(n2) + " ", end="")
   for i in range(3, 13):
       n3 = n1 + n2
       n1 = n2
       n2 = n3
       print(str(n2) + " ", end="")
   print()

3. for i in range(1, 5):
    print("*" * 5)

4. for i in range(1, 6):
    print("*" * i)

5. for i in range(1, 8):
    print(str(i) * i)

6. for i in range(1, 7):
    print("|      ", end="")
    print()
    for i in range(1, 7):
        for j in range(1, 11):
            print(j % 10, end="")
    print()

7. COUNT = 6
   INNER_COUNT = 7
   def main():
       for i in range(1, COUNT + 1):
           print("|", end="")
           print(" " * (INNER_COUNT - 1), end="")
       print()

       for i in range(1, COUNT + 1):
           for j in range(1, INNER_COUNT + 1):

```