

Question 1 – drawDoubleRamp(size)

size = 3

text

```
*      *  
**     **  
*****
```



size = 4

text

```
*          *  
**         **  
***        ***  
*****
```



size = 5

text

```
*            *  
**           **  
***          ***  
****         ****  
*****        *****  
*****
```



Question 3 – `drawTrapezoid(size)`

size = 3

text



```
*****
 *
 *
 *
 *
 *
```

size = 4

text



```
*****
 *
 *
 *
 *
 *
 *
```

size = 5

text



```
*****
 *
 *
 *
 *
 *
 *
 *
```

Program #3 - drawFigure() - 16 points

Write a method named `drawFigure()` that prints the following figures, based on a parameter representing the size. Examples:

Size	Figure
3	<pre> --*-- -***- ***** </pre>
5	<pre> ----*---- ---***--- --*****-- -*****- ***** </pre>
8	<pre> -----*----- -----***----- -----*****----- -----*****----- -----*****----- -----*****----- -----*****----- -----*****----- </pre>

```
public static void main(String[] args) {  
    drawFigure(8);  
}
```

```
public static void printChars(String chars, int count) {  
    for (int i = 1; i <= count; i++) {  
        System.out.print(chars);  
    }  
}
```

Key for Question 1 – drawDoubleRamp(int size)

Pattern (for size 4):

text

```
*      *
**     **
***    ***
*****
```

Implementation:

java

```
public static void drawDoubleRamp(int size) {
    for (int line = 1; line <= size; line++) {
        int leftStars  = 1 * line + 0 * size + 0;
        int spaces     = -2 * line + 2 * size + 0;
        int rightStars = 1 * line + 0 * size + 0;

        for (int i = 0; i < leftStars; i++) {
            System.out.print("*");
        }
        for (int i = 0; i < spaces; i++) {
            System.out.print(" ");
        }
        for (int i = 0; i < rightStars; i++) {
            System.out.print("*");
        }
        System.out.println();
    }
}
```

Key for Question 3 – drawTrapezoid(int size)

Pattern (for size 4):

text

```
*****
 *****
  *****
   *****
```

Implementation:

java

```
public static void drawTrapezoid(int size) {
    for (int line = 1; line <= size; line++) {
        int leftSpaces = 1 * line + 0 * size - 1;
        int stars      = 0 * line + 2 * size - 2;

        for (int i = 0; i < leftSpaces; i++) {
            System.out.print(" ");
        }
        for (int i = 0; i < stars; i++) {
            System.out.print("*");
        }
        System.out.println();
    }
}
```

```
public static void drawFigure(int size) {
```

```
    for(int i=1; i<=size; i++) {
```

```
        System.out.print("|");
```

```
        printChars("-", -1 * i + size);
```

```
        printChars("*", 2 * i - 1);
```

```
        printChars("-", -1 * i + size);
```

```
        System.out.println("|");
```

```
    }
```

```
}
```