# Loop Quiz – Answers

1. **for**(**int** i = 1; i <= 19; i += 2)

{

System.out.println(i);

}

1. **int** j = 1;

**while**(j <= 19)

{

System.out.println(j);

j+=2;

}

1. **for**(**int** k = 18; k > 10; k -=2)

{

System.out.println(k);

}

1. Analysis:

|  |  |  |  |
| --- | --- | --- | --- |
| **Pattern** | **Row #** | **# Stars** | **# Spaces** |
| \*\*\*\*\*\*\* | 1 | 7 | 0 |
| \*\*\*\*\* | 2 | 5 | 1 |
| \*\*\* | 3 | 3 | 2 |
| \* | 4 | 1 | 3 |
|  | n | 2 \* (lines - n) + 1 | n- 1 |

**public void** upsideDownPyramid(**int** lines){

**for**(**int** row = 1; row <= lines; row++){

**for**(**int** s = 1; s <= row - 1; s++){

System.out.print(“ “);

}

**for**(**int** a = 1; a<= 2\*(lines – row) + 1; a++){

System.out.print(“\*“);

}

System.out.println();

}

}

5. Analysis:

|  |  |  |  |
| --- | --- | --- | --- |
| **Pattern** | **Row #** | **# Stars** | **# Spaces** |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | 1 | 15 | 6 |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | 2 | 15 | 5 |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | 3 | 15 | 4 |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | 4 | 15 | 3 |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | 5 | 15 | 2 |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | 6 | 15 | 1 |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | 7 | 15 | 0 |
|  | n | stars | rows - n |

public void picture(int rows, int stars){

for(int r = 1; r <= rows; r++){

for(int sp = 1; sp <= rows – r; sp++){

System.out.print(“ “);

}

for(int a = 1; a <= stars; a++){

System.out.print(“\*“);

}

System.out.println();

}

}

**Bonus Questions (3 points each)**

1. The year 1978 has an unusual property. When you add the 19 to the 78, the total is the same as the middle two digits (97). What will be the next year to have this same property?

**The next year to have the same property will be 2307.  
  
23 + 07 = 30**

1. Allison, Jerry, Bonnie, and Bill are participating in a Thanksgiving Pageant at their school. The students will portray an Indian warrior, a pilgrim, an Indian maiden, and a deer. Their props consist of a pumpkin, a fish, a basket of corn, and colored leaves. During the pageant, they will recite a poem, sing a song, do a dance, and act as the narrator. Their parents, whose lasts names are Lee, Newton, Myers, and Schuler, will be watching in the audience. The ages of the performers are 13, 12, 11, and 10 years old. Use the clues to help you find out who will be doing what for the pageant.   
     
   1. Mrs. Lee made her daughter's costume and also the costumes of the Indian maiden and the dancer.   
   2. Mr. Myers helped his son rehearse his poem.   
   3. The dancer was older than Lee and the pilgrim, but younger than Allison.   
   4. The 11-year-old ripped her deer outfit, but her mother pinned it.  
   5. Newton carried his fish during his tribal dance.  
   6. Jerry's pumpkin was a symbol of the feast for the pilgrims.   
   7. The Indian maiden carried corn as she sang the song of feasting.

### Answer

Allison is the daughter of Mr. Schuler, is 13 years old, has the costume of the Indian maiden, sang a song, and has corn as her prop.  
  
Jerry is the son of Mr. Myers, is 10 years old, has the costume of the pilgrim, read a poem, and has a pumpkin as a prop.  
  
Bonnie is the daughter of Mrs. Lee, is 11 years old, has the costume of the deer, is the narrator, and has leaves as her prop.  
  
Bill is the son of Mr. Newton, is 12 years old, has the costume of the Indian warrior, does the dance, and has a fish as his prop.