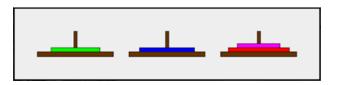
## Tower of Hanoi

The Tower of Hanoi is a puzzle that involves moving disks from one rod to another, following the rule that you can never place a larger disk on top of a smaller disk. There is a third rod that you can use to solve the puzzle.



You can read all about it on the <u>Math is Fun</u> and <u>Wikipedia</u> websites. You can solve the puzzle by reading operator input from the console, or you can implement a graphical solution using classes provided for you so that you don't have to program the graphics yourself.

Below is the code for the application *TowerDemo* from the *com.judahstutorials.javaintro.towerofhanoi* package in our *javaintro* jar file. It works like this:

- 1. It creates a *Pitch* object, which encapsulates the pre-written GUI. Then goes to the application's *execute* method, where it:
- Pauses for one second.
- 3. Removes the disk from the top of rod 0 and pauses for one second.
- 4. Puts the disk at the top of rod 1 and pauses for one second.
- 5. Removes the disk from the top of rod 0 and pauses for one second.
- 6. Puts the disk at the top of rod 2 and pauses for one second.
- 7. Removes the disk from the top of rod 1 and pauses for one second.
- 8. Puts the disk at the top of rod 2 and pauses for one second.

You can find the documentation for the Tower of Hanoi classes in the <u>documentation</u> for our *javaintro* library.

```
package com.judahstutorials.javaintro.towerofhanoi;
public class TowerDemo
{
   public static void main(String[] args)
        Pitch
                    pitch = Tower.play();
        TowerDemo
                    demo
                            = new TowerDemo();
        demo.execute( pitch );
    }
   public void execute( Pitch pitch )
        long
                pauseFor
                            = 1000;
        Pitch.pause( pauseFor );
                disk
                        = pitch.pop(0);
        Disk
        pitch.repaint();
        Pitch.pause( pauseFor );
        pitch.push( disk, 1 );
        pitch.repaint();
        Pitch.pause( pauseFor );
        disk = pitch.pop(0);
        pitch.repaint();
        Pitch.pause( pauseFor );
        pitch.push( disk, 2 );
        pitch.repaint();
        Pitch.pause( pauseFor );
        disk = pitch.pop( 1 );
        pitch.repaint();
        Pitch.pause( pauseFor );
        pitch.push( disk, 2 );
        pitch.repaint();
    }
}
```