

Tens Game

Name:

Block:

Seat:

Tens This game will have the user remove all the tiles by selecting two tiles that add up to 10. To make it harder, the two tiles must be neighbors. Additionally, you can construct a board that will never have too many of any particular number.

1. In the **Tens** class, complete the `resetTiles()` method so it constructs new **Tile** objects and placed it in the `tiles` list.
2. Complete subclass of **Light** called **Tile**. It needs a new instance variable called `digit` that has a number from 1 to 9. You can make a **Font** object and set the **Font** in java with something like `setFont (new Font ("TimesRoman", Font.BOLD | Font.ITALIC, 20));`
3. You need to write accessor methods, and a new `draw` method that calls the super class's `draw` method, and draws the digit in the **Tile**.
4. Now we need to update the **Tens** method `mouseReleased` so that when a tile is clicked it is turned on or off
5. Next, in the **Tens** class, add a instance variable called `selected` (an **ArrayList** of **Tile** which will either be empty, or contain one or two references to which **Tile**'s have been selected.
6. The **Tens** class method `mouseReleased` needs to be updated. If one of the `tiles` contains the mouse click, we need to either select it or deselect it (if it was already selected) adding or removing it from the `selected` list accordingly. If this is the second **Tile** to be selected, we need to remove them from `tiles` if the tiles add up to 10. If they do not add up to 10, place an error message in `message`, empty the `Tiles` in `selected`, and turn off all the tiles are tuned off. The actual code to remove the code may best be done in its own method called `remove()`

```
/**
 * Precondition: there must be 2 selected tiles
 * Postcondition: All tiles are off and selected is empty
 */
public void remove()
{
    Tile first = selected.remove(0);
    Tile second = selected.remove(0);
    first.off();
    second.off();
    int sum = first.getDigit() + second.getDigit() ;
    if (sum == 10) {
        tiles.remove(first);
        tiles.remove(second);
        message = "Good move! Only "+tiles.size()+" left.";
    } else {
        message = "No, that adds up to "+sum+"! Try again";
    }
    repaint();
}
```