

2. The class `SingleTable` represents a table at a restaurant.

```
public class SingleTable
{
    /** Returns the number of seats at this table. The value is always greater than or equal to 4. */
    public int getNumSeats()
    { /* implementation not shown */ }

    /** Returns the height of this table in centimeters. */
    public int getHeight()
    { /* implementation not shown */ }

    /** Returns the quality of the view from this table. */
    public double getViewQuality()
    { /* implementation not shown */ }

    /** Sets the quality of the view from this table to value. */
    public void setViewQuality(double value)
    { /* implementation not shown */ }

    // There may be instance variables, constructors, and methods that are not shown.
}
```

At the restaurant, customers can sit at tables that are composed of two single tables pushed together. You will write a class `CombinedTable` to represent the result of combining two `SingleTable` objects, based on the following rules and the examples in the chart that follows.

- A `CombinedTable` can seat a number of customers that is two fewer than the total number of seats in its two `SingleTable` objects (to account for seats lost when the tables are pushed together).
- A `CombinedTable` has a desirability that depends on the views and heights of the two single tables. If the two single tables of a `CombinedTable` object are the same height, the desirability of the `CombinedTable` object is the average of the view qualities of the two single tables.
- If the two single tables of a `CombinedTable` object are not the same height, the desirability of the `CombinedTable` object is 10 units less than the average of the view qualities of the two single tables.

Assume `SingleTable` objects `t1`, `t2`, and `t3` have been created as follows.

- `SingleTable t1` has 4 seats, a view quality of 60.0, and a height of 74 centimeters.
- `SingleTable t2` has 8 seats, a view quality of 70.0, and a height of 74 centimeters.
- `SingleTable t3` has 12 seats, a view quality of 75.0, and a height of 76 centimeters.

The chart contains a sample code execution sequence and the corresponding results.

Statement	Value Returned (blank if no value)	Class Specification
<code>CombinedTable c1 = new CombinedTable(t1, t2);</code>		A <code>CombinedTable</code> is composed of two <code>SingleTable</code> objects.
<code>c1.canSeat(9);</code>	true	Since its two single tables have a total of 12 seats, <code>c1</code> can seat 10 or fewer people.
<code>c1.canSeat(11);</code>	false	<code>c1</code> cannot seat 11 people.
<code>c1.getDesirability();</code>	65.0	Because <code>c1</code> 's two single tables are the same height, its desirability is the average of 60.0 and 70.0.
<code>CombinedTable c2 = new CombinedTable(t2, t3);</code>		A <code>CombinedTable</code> is composed of two <code>SingleTable</code> objects.
<code>c2.canSeat(18);</code>	true	Since its two single tables have a total of 20 seats, <code>c2</code> can seat 18 or fewer people.
<code>c2.getDesirability();</code>	62.5	Because <code>c2</code> 's two single tables are not the same height, its desirability is 10 units less than the average of 70.0 and 75.0.
<code>t2.setViewQuality(80);</code>		Changing the view quality of one of the tables that makes up <code>c2</code> changes the desirability of <code>c2</code> , as illustrated in the next line of the chart. Since <code>setViewQuality</code> is a <code>SingleTable</code> method, you do not need to write it.
<code>c2.getDesirability();</code>	67.5	Because the view quality of <code>t2</code> changed, the desirability of <code>c2</code> has also changed.

The last line of the chart illustrates that when the characteristics of a `SingleTable` change, so do those of the `CombinedTable` that contains it.

Write the complete `CombinedTable` class. Your implementation must meet all specifications and conform to the examples shown in the preceding chart.

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