**TASK-2.0**

**Please read the source code below and try to understand what it does.**

**public** Paint getPaint(**double** value) {

**double** v = Math.*max*(value, **this**.lowerBound);

v = Math.*min*(v, **this**.upperBound);

**int** g = (**int**) ((value - **this**.lowerBound) / (**this**.upperBound

- **this**.lowerBound) \* 255.0);

**return** **new** Color(g, g, g);

}

**Q.2.0. How well do you think you understand the code?**

* Well
* Not so well

**TASK-2.1**

However, this same code is failing.

**Failure Message:**

java.lang.IllegalArgumentException: Color parameter outside of

expected range: Red Green Blue

**Test:**

GrayPaintScale gps = new GrayPaintScale();

c = (Color) gps.**getPaint**(-0.5);

assertTrue(c.equals(Color.black));

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We will ask you **four different** questions about the **same code** with the **same failure** above.

**Q.2.1. Do you think that something in the highlighted code causes the failure?**

* Yes
* No

**public** Paint getPaint(**double** value) {

**double** v = Math.*max*(value, **this**.lowerBound);

v = Math.*min*(v, **this**.upperBound);

**int** g = (**int**) ((value - **this**.lowerBound) / (**this**.upperBound

- **this**.lowerBound) \* 255.0);

**return** **new** Color(g, g, g);

}

**Q.2.2. How confident are you that your answer is correct?**

* Confident
* Not so confident

**TASK-2.2**

**Failure Message:**

java.lang.IllegalArgumentException: Color parameter outside of

expected range: Red Green Blue

**Test:**

GrayPaintScale gps = new GrayPaintScale();

c = (Color) gps.**getPaint**(-0.5);

assertTrue(c.equals(Color.black));

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**Q.2.3. Do you think that something in the highlighted code causes the failure?**

* Yes
* No

**public** Paint getPaint(**double** value) {

**double** v = Math.*max*(value, **this**.lowerBound);

v = Math.*min*(v, **this**.upperBound);

**int** g = (**int**) ((value - **this**.lowerBound) / (**this**.upperBound

- **this**.lowerBound) \* 255.0);

**return** **new** Color(g, g, g);

}

**Q.2.4. How confident are you that your answer is correct?**

* Confident
* Not so confident