



3. (6 points) Precisely explain why the second statement below is incorrect. How could it be corrected?

```
int x = 3;  
5 = x;
```

4. (6 points) Show one line of Java code that will create an identifier called `phrase` where `phrase` refers to an object from the `String` class.



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5. (6 points) Show how to create a `WinPlotter` object and set the size of the window to  $500 \times 500$ .

6. (6 points) List three methods from the `java.lang.String` class.

7. (17 points) Complete the implementation of the `main` method that prompts the user: “Enter a phrase” and displays the number of characters in the phrase that the user entered.

Specifically, if the user enters “Exams are fun”, the program should display, “The number of characters in that phrase is: 13”.

You should use methods from the `javax.swing.JOptionPane` class to prompt the user to enter a phrase and to display the result. You may assume that the appropriate `import` statements have been included in the `.java` file.

```
public static void main(String [] args)
{
```

```
}
```

---

**8.** (17 points) The sequence diagram on page 7 shows the `Exam1` class creating `Car` objects and sending messages to the `Car` objects. Use the sequence diagram to determine the methods of the `Car` class and draw the UML class diagram for the `Car` class.

9. (22 points) The Exam1 class has the usual main() method and method called park(). Use the sequence diagram on page 7 to complete the Java program in the space below.

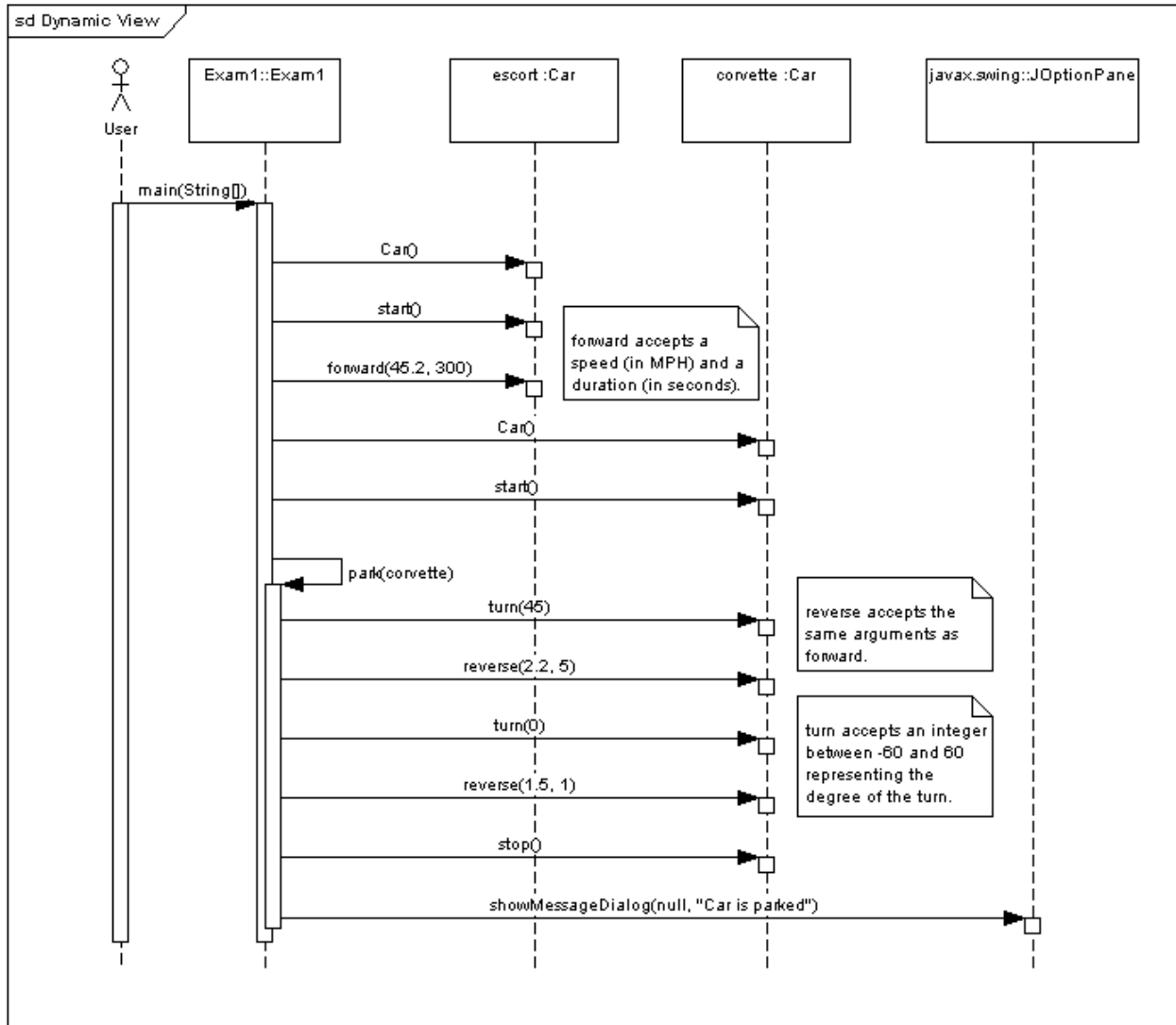
```
public class Exam1 {  
    public static void main(String [] args) {
```

```
}
```

```
    public static void park(Car car) {
```

```
    }  
}
```

The following UML sequence diagram will be used for questions 8 and 9.





Additional work area for any problem. Clearly identify to which problem the work on this page is related.