ANSWER KEY

Activity and Lab Keys

Keys for every lab and activity sheet in this lesson, in day order.

How to grade: Use the sample answers below. Give full points when an answer has the sample's idea, in any words. Give part of the points when it is partly right.

A student's code doesn't have to match the sample code. Any code that does the same job earns the points.

Not sure a student's code works? Open the CodeGrove link on the ONLINE sheet, type the student's code in place of the code there, and press Check.

Day 1 activity: What's in args?

Points: Part A is worth 6 points, 1 for each part. Part B is worth 3 points, 1 for each command. The sheet is worth 9 points.

#	Sample answer
Q1	A comment.
Q2	`Main.java`
Q3	`main`
Q4	A block comment.
Q5	A semicolon.
Q6	The `main` method.
Q7	0 words.
Q8	1 word: red.
Q9	2 words: red and 7.

Day 2 lab: Receipt Printer

Points: Each task is worth 4 points: 2 for the lines the student writes and 2 for the Why answer. The sheet is worth 12 points.

Task 1: Fix the Header

1. (2 points) The lines do the same job as lines 4 and 5 of the sample program, so the output matches the sample output exactly, with the same capital letters, spaces and punctuation.

Main.java

```
1  public class Main {
2      public static void main(String[] args) {
3          // The receipt header
4          System.out.println("Hawthorne Hardware");
5          System.out.println("Tools, paint and garden supplies");
6          System.out.println("--------------------");
7      }
8  }
```

Output

```
Hawthorne Hardware
Tools, paint and garden supplies
--------------------
```

2. (2 points) **Sample answer:** A print line needs a `;`, and `system` is not the same as `System`. **Look for** an answer that says a print line ends with a `;` and Java cares about capital letters, so `system` is not `System`.

Task 2: Fix the Items

3. (2 points) The lines do the same job as lines 5 and 6 of the sample program, so the output matches the sample output exactly, with the same capital letters, spaces and punctuation.

Main.java

```java
public class Main {
    public static void main(String[] args) {
        System.out.println("Hawthorne Hardware");
        // The items
        System.out.println("Hammer: $15");
        System.out.println("Paint roller: $8");
    }
}
```

Output

```
Hawthorne Hardware
Hammer: $15
Paint roller: $8
```

4. (2 points) **Sample answer:** Text needs a quote mark at both ends, and `printLn` is not `println`. **Look for** an answer that says text must start and end with a quote mark and Java cares about capital letters, so `printLn` is not `println`.

Task 3: Print the Receipt

5. (2 points) The lines do the same job as lines 3, 6, 7 and 13 of the sample program, so the output matches the sample output exactly, with the same capital letters, spaces and punctuation.

Main.java

```java
public class Main {
    public static void main(String[] args) {
        // This program prints a receipt for Hawthorne Hardware.
        System.out.println("Hawthorne Hardware");
        // Print each item here.
        System.out.print("Hammer: ");
        System.out.println("$15");
        System.out.print("Paint roller: ");
        System.out.println("$8");
        System.out.print("Garden gloves: ");
        System.out.println("$6");
        System.out.println("Total: $29");
        /* System.out.println("TEST: Is the printer on?"); */
    }
}
```

Output

```
Hawthorne Hardware
Hammer: $15
Paint roller: $8
Garden gloves: $6
Total: $29
```

6. (2 points) **Sample answer:** `print` stays on the line, and Java skips code between `/*` and `*/`. **Look for** an answer that says `print` stays on the same line, and `println` ends it and Java skips a comment, so code between `/*` and `*/` doesn't run.

Day 3 activity: 1.1 Quiz Task

Points: The sheet is worth 4 points: 2 for the lines the student writes and 2 for the Why answer.

Task 1: Two Errors

1. (2 points) The lines do the same job, so the output matches the sample output exactly, with the same capital letters, spaces and punctuation.

Main.java

```java
public class Main {
    public static void main(String[] args) {
        // Gracie's thank-you note
        System.out.println("Dear Osvaldo,");
        System.out.println("Thank you for the birthday card.");
        System.out.println("It made me smile all day.");
        System.out.println("Your friend, Gracie");
    }
}
```

Output

```
Dear Osvaldo,
Thank you for the birthday card.
It made me smile all day.
Your friend, Gracie
```

2. (2 points) **Sample answer:** Java compiles the whole file before it runs any line, so one compile error stops every line. The note printed only after both errors were fixed and the file compiled. **Look for** an answer that says Java compiles the whole file before it runs any line and one compile error stops the whole program, so nothing prints.