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| Chapter 17 | Short-Answer Exercises | |
|  | | Java AP |

1. What is the output of the following code?

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| **Code** | ArrayList<String> aList = **new**  ArrayList<String>(Arrays.*asList*("dog","cat","shrimp"));  System.*out*.println(aList); |
| **Output**  **Description** | [dog, cat, shrimp] |

1. What is the output of the following code?

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| **Code** | ArrayList<Integer> aList = **new** ArrayList<Integer>(Arrays.*asList*(1,2,3,4,5,6,5,7));  **for**(**int** i = 0; i < aList.size(); ++i)  {  aList.remove(i);  }  System.*out*.println(aList); |
| **Output**  **Description** | [2, 4, 6, 7] |

1. What is the output of the following code?

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| **Code** | ArrayList<Integer> aList = **new** ArrayList<Integer>(Arrays.*asList*(1,2,3));  aList.add(4);  System.*out*.println(aList); |
| **Output**  **Description** | [1, 2, 3, 4] |

1. What is the output of the following code?

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| **Code** | ArrayList<Integer> aList = **new** ArrayList<Integer>(Arrays.*asList*(1,2,3,4,5,6,5));  aList.remove(**new** Integer(5));  System.*out*.println(aList);  aList = **new** ArrayList<Integer>(Arrays.*asList*(1,2,3,4,5,6,5));  aList.remove(5);  System.*out*.println(aList); |
| **Output**  **Description** | [1, 2, 3, 4, 6, 5]  [1, 2, 3, 4, 5, 5] |

1. Will the following code run without issue? If it does, what is the output? else what is the error?

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| **Code** | ArrayList<Integer> aList = **new** ArrayList<Integer>(Arrays.*asList*(1,2,3,4,5));  **for**(**int** i = 0; i <= aList.size(); ++i)  {  System.*out*.println(aList.get(i));  } |
| **Output**  **Description** | Error:  Exception in thread "main" java.lang.IndexOutOfBoundsException: Index 5 out-of-bounds for length 5  at java.base/jdk.internal.util.Preconditions.outOfBounds(Unknown Source)  at java.base/jdk.internal.util.Preconditions.outOfBoundsCheckIndex(Unknown Source)  at java.base/jdk.internal.util.Preconditions.checkIndex(Unknown Source)  at java.base/java.util.Objects.checkIndex(Unknown Source)  at java.base/java.util.ArrayList.get(Unknown Source)  at Main.main(Main.java:24) |

1. Using a for loop, write the code that will print the content of the following ArrayList to match the given output

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| **Code** | ArrayList<Integer> aList = **new** ArrayList<Integer>(Arrays.*asList*(1,2,3,4,5)); |
| **Output**  **Description** | 1 2 3 4 5 |
| **Student Code** | int size = aList.size();  for (int i = 0; i < size; ++i) {  System.out.print(aList.get(i) + " ");  } |

1. Using a for each loop, write the code that will print the content of the following ArrayList to match the given output

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| **Code** | ArrayList<Integer> aList = **new** ArrayList<Integer>(Arrays.*asList*(1,2,3,4,5)); |
| **Output**  **Description** | 1 2 3 4 5 |
| **Student Code** | for (Integer num : aList) {  System.out.print(num + " ");  } |

1. Write a method that replaces all instances of a value with another value

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| **Function Prototype** | **void** replace(ArrayList<Integer> list, **int** value, **int** replacement) |
| **Student**  **Code**  **Description** |  |