AP Computer Science
PRACTICE Examination 5

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Question 1. Consider the following method:

```java
public static String apple(String s)
{
    s = s.substring(3) + s.substring(1, 2);
    return s;
}
```

What is the output of the following code?

```java
String s = "GODSAVETHEQUEEN";
s = apple(s);
System.out.println(s);
```

Question 2. Consider the following method:

```java
public static int banana(int n)
{
    int t = 0;
    for (int i = 1; i <= n; i++)
    {
        t += i + i / 2;
    }
    return t;
}
```

What is the output of the following code?

```java
System.out.println(banana(10));
```

Question 3. Consider the following method:

```java
public static void grape(int[] a, int n)
{
    for (int i = 0; i < a.length; i++)
    {
        int k = i * n % a.length;
        a[i] = a[k];
    }
}
```

What is the output of the following code?

```java
int[] x = { 1, 2, 3, 4, 5, 6, 7 };
grape(x, 4);
System.out.println(Arrays.toString(x));
```

Question 4. Consider the following method:

```
public static int kiwi(int m, int n)
{
    int k = 0;
    while (n > 0)
    {
        k += n / m;
        n -= 2;
    }
    return m;
}
```

What is the output of the following code?

```
System.out.println(kiwi(10, 7));
```

Question 5. Consider the following method:

```
public static int pear(int n)
{
    if (n > 0) n = pear(n - 3) + n;
    return n;
}
```

What is the output of the following code?

```
System.out.println(pear(5));
```

Problem 1. Write complete code for a runnable class which computes and prints the product of 1357 and 83772. Correctly include necessary class declarations, method declarations, punctuation, and so forth.