# Topic1_2

**1.** The code segment below is intended to calculate the circumference `c` of a circle with the diameter `d` of `1.5`. The circumference of a circle is equal to its diameter times `pi`.

```
/* missing declarations */
c = pi * d;
```

Which of the following variable declarations are most appropriate to replace /* *missing declarations* */ in this code segment?

(A)
```
int pi = 3.14159;
int d = 1.5;
final int c;
```

(B)
```
final int pi = 3.14159;
int d = 1.5;
int c;
```

(C)
```
final double pi = 3.14159;
double d = 1.5;
double c;
```

(D)
```
double pi = 3.14159;
double d = 1.5;
final double c = 0.0;
```

(E)
```
final double pi = 3.14159;
final double d = 1.5;
final double c = 0.0;
```

**2.** Consider the following code segment.

```
int x = 5;
int y = 6;
/* missing code */
z = (x + y) / 2;
```

Which of the following can be used to replace /* *missing code* */ so that the code segment will compile?

```
  I. int z = 0;
 II. int z;
III. boolean z = false;
```

(A) I only

(B) II only

(C) I and II only

(D) II and III only

(E) I, II, and III

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**3.** A code segment (not shown) is intended to determine the number of players whose average score in a game exceeds `0.5`. A player's average score is stored in `avgScore`, and the number of players who meet the criterion is stored in the variable `count`.

Which of the following pairs of declarations is most appropriate for the code segment described?

(A)
```
double avgScore;
boolean count;
```

(B)
```
double avgScore;
double count;
```

(C)
```
double avgScore;
int count;
```

(D)
```
int avgScore;
boolean count;
```

(E)
```
int avgScore;
int count;
```