

1. In computer science, variables:

- A. are numbers like pi
- B. represent parts of an experiment that are measured or tested
- C. are placeholders for storing information
- D. are unchangeable

2. What is the difference between a variable's identifier and its value?

3. Explain what it means to declare a variable.

4. Assuming a player's score starts at 0 and increases by 1 whenever they reach a goal, what data type would be best used to store this value in a variable with the identifier "score"?

- A. Numeric
- B. Array
- C. Boolean
- D. String

5. What would be the value of "var_x" after this statement runs: **var_x = 6 - 4**

- A. 10
- B. 2
- C. "6 - 4"
- D. undefined

6. What would be the value of "var_x" after this statement runs: **var_x = "6 - 4"**

7. What is the assignment operator? What does it do?

8. Label each kind of variable:

- A. `adaLovelace = "First programmer"`

- B. Hotel_Floor = "13"
- C. Jersey = 18
- D. QueenOf = "Sheba"

9. Choose the variable names that do not follow the naming rules. Explain why they are incorrect:

- A. "teacherNames"
- B. RangersScore
- C. School Assignment
- D. 6ofSpades

10. Which of the following variable names are valid?

- (a) 123variable
- (b) x
- (c) total_score
- (d) Weight_in_#s
- (e) one.0
- (f) gross-cost
- (g) RADIUS
- (h) Radius
- (i) radius
- (l) this_is_a_variable_to_hold_the_width_of_a_box

11. What will be the final values of a, b, c after the following assignment statements?

```
int a,b,c;  
a = 1;  
b = 2;  
c = 3;  
a = b+c;  
a = a+1;  
b = a;  
b = a+b*10;  
c = b % 10;
```

12. What does the IDL program do? Why is it helpful?

13. Why would you want to put comments in your code?
14. Which function should you use to display text on the screen?
15. Declare a variable called `winning_number` and give it a value of 1001.
16. Which of these are NOT allowed as C# variable names?
- A. `@UserName`
 - B. `handle`
 - C. `Num_posts`
 - D. `FriendCount`
17. In C#, what does the “=” symbol mean?
18. What’s wrong with the following variable name?
date/Time
19. What’s wrong with using the following variable name?
string
20. What’s wrong with the following variable name?
100111

21. Which of these is NOT a string:

- A. "string cheese"
- B. 'shoelace'
- C. "She said, \"keep pulling the thread\""
- D. 5 + 9

22. What will the C# code below print?

```
String art = "painting";  
Console.WriteLine("my favorite kind of art is: " + art);
```

23. If you want to ask a user their favorite color, what would be a good function to use? How would you write it?

24. What will the following code print?

```
string flavor1 = "chocolate";  
string flavor2 = "strawberry";  
string flavor3 = "vanilla";  
Console.WriteLine ("My favorite sundae has these 3 flavors: " +  
flavor1 + ", " + flavor2 + ", and " + flavor3 + ".");
```