

# Variables and Data Types

## Variable Declaration

1. What is a variable?
2. List two rules that must be followed when declaring a variable.
3. Write three valid variable names that follow the programming convention outlined in the notes.
4. What is a descriptive variable?
5. Data types serve two purposes:
  1. To inform the computer of the \_\_\_\_\_ of data a variable is storing
  2. To inform the computer how much \_\_\_\_\_ is needed for a particular variable
6. What is the name used to describe the eight basic data types.
7. List the 5 primitive types we will be using in this course.

## Assignment Operator

8. Write a line of code that would assign a value of 100 to a variable named myGrade.
9. What is the purpose of the // operator?
10. What is the meaning of the term user-friendly?

11. Write a line of code that will initialize a variable named `score` to a value of 25.
12. The code below initializes the variable **price** by assigning it a value of 5.99. Write a line of code below it that displays the contents of the variable **price** on the terminal window.

```
double price = 5.99;
```

---

13. Write a line of code that displays the message "Small Pizza = 5.99" where 5.99 is the value contained in the variable **price** from the previous question. (Use the **concatenation** operator)

## Data Types

14. What are the two integer types we will be using in this course?
15. What is the largest number that can be stored in an `int` variable?
16. Numeric values which are not integers are stored as \_\_\_\_\_ numbers.
17. How many bytes of memory does a variable of type `double` occupy?
18. Write a line of code that initializes a variable named `pi` to value of 3.14.
19. What is the difference between a character literal and a string literal?
20. A Boolean variable can contain a value of \_\_\_\_\_ or \_\_\_\_\_.