

Programming Assignment 1

1. For each of the following expression, determine the type and value:
 - A) $5 + 3 / 5 * (4 - 10)$
 - B) $17 // 3 ** 4$
2. Evaluate the following boolean expressions:
 - A) $15 \% 4 < 20 / 3$
 - B) `False or not (False or True) and True`
 - C) $3/4 == 0$ or $5 < 6$
3. Let `a = True`, `b = True`, `c = False`. Evaluate the following:
 - A) `a and not b`
 - B) `b or c`
 - C) `not b == c`
 - D) `a and not c`
 - E) `b or c and not a`
 - F) `a != b or b != c`
4. Select all invalid variable names below and give reason the variable name is invalid:
 - A) `speed Of Light`
 - B) `x_2`
 - C) `3Attempts`
 - D) `vertical-distance`
 - E) `B5V`
5. In a script file, write a program that initializes a variable to store the length of a square in inches, calculates the perimeter and area of the square, and outputs the results. Test it by changing the initial value to different ones.
6. Write a program that will initialize a variable that stores a number of seconds and then calculate in different variables, the equivalent number of hours, minutes and seconds. For example, 300 seconds is 0 hours, 5 minutes and 0 seconds while 4503 seconds is 1 hour, 15 minutes and 3 seconds.