

# C++ Types & Variables

## Exercises

CS185

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1. Which of the following are valid identifiers (variable names)?

- ☐ int
- ☐ Int
- ☐ \_var
- ☐ 1var
- ☐ var1
- ☐ var\_name
- ☐ var-name
- ☐ varName
- ☐ var name
- ☐ VAR

2. Which of the following are integral type numbers?

- ☐ 0
- ☐ 2
- ☐ 1.5
- ☐ 3/4
- ☐ -5
- ☐ 0.001
- ☐ -70.2
- ☐ 10.7d
- ☐ 10000000L

## 3. Which of the following variable initializations will not compile?

```
int main(void)
{
    float a = 30;
    float b = 30.0;
    float c = 30.0f;
    double d = 30;
    double e = 30.0;
    double f = 30.0f;
    double g = 30.0d;
    int h = 30;
    int i = 30.0;
    int j = 30L;
    char k = 30;
    char l = 'B';
    char m = 50_000_000;
    char n = -'B';
    long o = 'B';
    long p = 30;
    long q = 50_000_000;
}
```

- ☐ a
- ☐ b
- ☐ c
- ☐ d
- ☐ e
- ☐ f
- ☐ g
- ☐ h
- ☐ i
- ☐ j
- ☐ k
- ☐ l
- ☐ m
- ☐ n
- ☐ o
- ☐ p
- ☐ q

4. In the examples below, which line(s) cause(s) a warning?

```
int main(void)
{
1.    float f  = 7.0f;
2.    double d = 7.0;
3.
4.    d = f;
5.    f = d;
}
```

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

5. Which one of the following lines of code does not require an implicit conversion by the compiler?

- ☐ long l = 21474836480
- ☐ long l = 21474836480L
- ☐ long l = 21474836480.0f
- ☐ long l = 21474836480.0

6. Which of the following does NOT contain a syntax error?

- ☐ int a, b,c, and d;
- ☐ float f 2;
- ☐ double d = 2.30;
- ☐ 1 = char B;