

Exercises Solutions:

1) For the following values, what data type does a variable need to be in order to store them?

`true` __boolean__ `color(0,0,255)` __color__
 42 __int / float__ 2.71 __float__

2) Write out a Processing statement below to declare and initialize a variable that holds our course number (120). Make sure that you give it an *intuitive* and *legal* variable name.

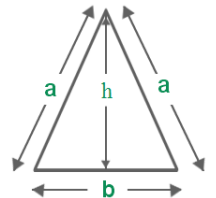
example: `int classNum = 120;`

3) Describe what will be drawn when the following Processing program is run:

```
int i = 10;
int j = i * 3/2;
color c = color(255,0,0);
i = i + j;
fill(c);
noStroke();
rect(i, j, 30, 30);
```

A 30x30 red square with top-left corner at (25, 15) and no outline.

4) Complete the program below that draws an isosceles triangle with the top point at (`topX`, `topY`) no matter what we initialize the following variables to (note that declaring multiple variables on one line, as shown here, does work as long as they are the same data type):



```
int h = 60, b = 60;
int topX = 100, topY = 100;
```

`triangle(topX, topY, topX - b / 2, topY + h, topX + b / 2, topY + h);`

5) The `max()` command returns the larger of two values, while `min()` returns the smaller of two values. For the following values of `int x` and `int y`, what do the shown commands return?

<code>x</code>	<code>max(0, x);</code>
10	10
5	5
0	0
-5	0

<code>y</code>	<code>min(200, y);</code>
190	190
195	195
200	200
205	200