Practice with Parameters

Vocabulary:
The variable `scale` is used when `drawTree` is called. We say `scale` is an actual parameter (or argument) of `drawTree`. The values `i*icon.width` and `200` are also actual parameters (or arguments) of `drawTree`.

The variables `s`, `x`, and `y` are formal parameters of `drawTree`. They are declared in the definition of the `drawTree` function.

Scope:

```java
Line 1. PImage icon; // storage for image
Line 2. void setup() {
Line 3. background(255);
Line 4. size(400, 400);
Line 5. icon = loadImage("tree.png");
Line 6. for (int i = 1; i < 4; i++) {
Line 7. float scale = .5*i;
Line 8. drawTree(scale, i*icon.width, 200);
Line 9. }
Line 10. }
Line 11. // Draw the tree image scaled by an amount s
Line 12. // and placed so that its center is at x,y
Line 13. void drawTree(float s, int x, int y) {
Line 14. pushMatrix();
Line 15. translate(x,y);
Line 16. scale(s,s);
Line 17. translate(-icon.width/2,-icon.height/2);
Line 18. image(icon, 0, 0);
Line 19. popMatrix();
Line 20. }
```

Values of variables as the code executes: Let’s look at the values of the variables as we unwind the loop:

<table>
<thead>
<tr>
<th>i</th>
<th>scale</th>
<th>Arguments of drawTree</th>
<th>s</th>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
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<td>(Lines 7-8)</td>
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