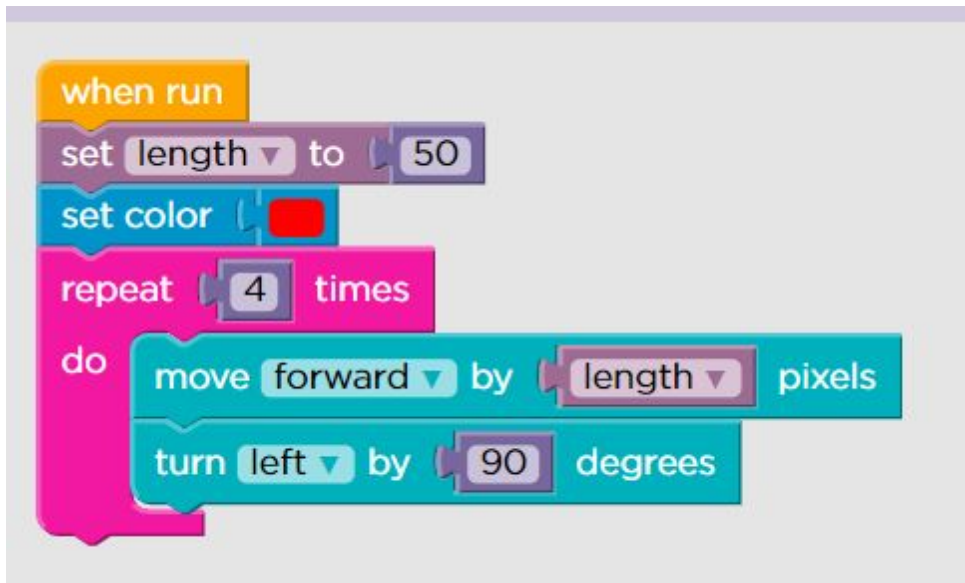


LEMCO 2021 Sample Coding Questions

All questions in the coding section of the olympiad will be multiple choice. There will be one free response question to be used as a tiebreaker if needed. The questions below are prepared to give an idea to students and parents to better prepare for the test.

Sample Question 1:

When the following code runs, what would you see on the screen?



```
when run
  set length to 50
  set color to red
  repeat 4 times
    do
      move forward by length pixels
      turn left by 90 degrees
```

Answer:



Sample Question 2:

Consider that we have an algorithm with an input of the list the following:

List:

blue	red	green	black	white	yellow
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Algorithm:

- Step 1. Swap places with the 1st and 4th items on the list.
- Step 2. Swap places with the 1st and 2nd items on the list.
- Step 3. Swap places with the 3rd and 4th items on the list.
- Step 4. End.

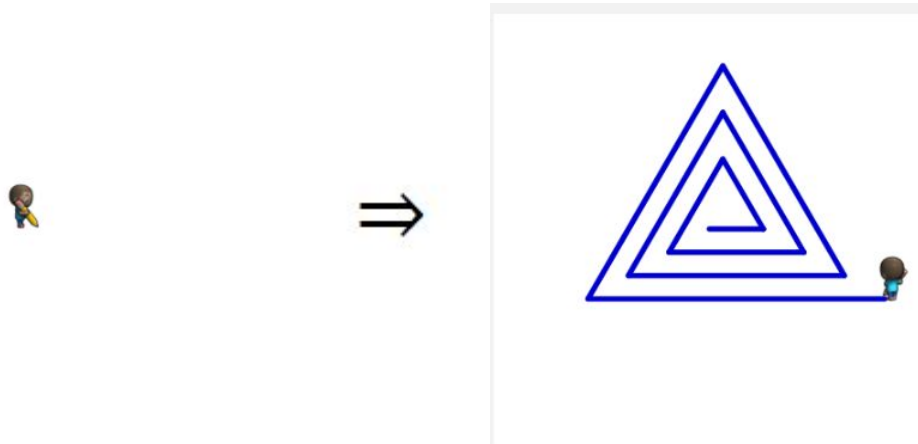
How will the list be after running this algorithm?

Answer:

red	black	blue	green	white	yellow
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Sample Question 3:

Let's say you are making a program to draw the figure below:



What should you enter in the question mark section of the following code block?
“turn left by ??? degrees”

```
when run
  set length to 50
  set increase to 25
  set color to blue
  repeat 10 times
    do
      move forward by length pixels
      turn left by ??? degrees
      set length to length + increase
```

Answer: 120

Sample Question 4:

In computing, % (the modulo) operation returns the remainder of a division. For example $26 \% 5$ would be equal to 1.

What would be the output of the following code?

```
<script>
var outcome = 0;
var i;
for (i = 0; i < 11 ; i++) {
    if ( (i % 2) == 1) {
        outcome = outcome + i;
    }
}
print(outcome);
</script>
```

Answer:

25 = It will add the following numbers $1 + 3 + 5 + 7 + 9$