

Program Evaluation

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Expressions

`random(50)`

`25 + counter * 5`

`line(x, 25, x, 500)`

`fill(random(255), 255, 255)`

`line(25 + x * 10, random(500), 25 + x * 10, 500)`

Expressions

```
line(25 + x * 10, random(500), 25 + x * 10, 500)
```

<i>Name</i>	<i>Value</i>
x	7

Expressions

```
line(25 + x * 10, random(500), 25 + x * 10, 500)
```

<i>Name</i>	<i>Value</i>
x	7

Expressions

line($25 + x * 10$, random(500), $25 + x * 10$, 500)

line($25 + 7 * 10$, random(500), $25 + x * 10$, 500)

<i>Name</i>	<i>Value</i>
x	7

Expressions

line($25 + x * 10$, random(500), $25 + x * 10$, 500)

line($25 + 7 * 10$, random(500), $25 + x * 10$, 500)

line($25 + 70$, random(500), $25 + x * 10$, 500)

<i>Name</i>	<i>Value</i>
x	7

Expressions

line($25 + x * 10$, random(500), $25 + x * 10$, 500)

line($25 + 7 * 10$, random(500), $25 + x * 10$, 500)

line($25 + 70$, random(500), $25 + x * 10$, 500)

line(95, random(500), $25 + x * 10$, 500)

<i>Name</i>	<i>Value</i>
x	7

Expressions

line($25 + x * 10$, random(500), $25 + x * 10$, 500)

line($25 + 7 * 10$, random(500), $25 + x * 10$, 500)

line($25 + 70$, random(500), $25 + x * 10$, 500)

line(95, random(500), $25 + x * 10$, 500)

line(95, 354, $25 + x * 10$, 500)

<i>Name</i>	<i>Value</i>
x	7

Expressions

line($25 + x * 10$, random(500), $25 + x * 10$, 500)

line($25 + 7 * 10$, random(500), $25 + x * 10$, 500)

line($25 + 70$, random(500), $25 + x * 10$, 500)

line(95, random(500), $25 + x * 10$, 500)

line(95, 354, $25 + x * 10$, 500)

line(95, 354, $25 + 7 * 10$, 500)

<i>Name</i>	<i>Value</i>
x	7

Expressions

line($25 + x * 10$, random(500), $25 + x * 10$, 500)

line($25 + 7 * 10$, random(500), $25 + x * 10$, 500)

line($25 + 70$, random(500), $25 + x * 10$, 500)

line(95, random(500), $25 + x * 10$, 500)

line(95, 354, $25 + x * 10$, 500)

line(95, 354, $25 + 7 * 10$, 500)

line(95, 354, $25 + 70$, 500)

<i>Name</i>	<i>Value</i>
x	7

Expressions

line($25 + x * 10$, random(500), $25 + x * 10$, 500)

line($25 + 7 * 10$, random(500), $25 + x * 10$, 500)

line($25 + 70$, random(500), $25 + x * 10$, 500)

line(95, random(500), $25 + x * 10$, 500)

line(95, 354, $25 + x * 10$, 500)

line(95, 354, $25 + 7 * 10$, 500)

line(95, 354, $25 + 70$, 500)

line(95, 354, 95, 500)

<i>Name</i>	<i>Value</i>
x	7

Statements

```
float h = random(50)
```

```
float x = 25 + counter * 5
```

```
line(x, 25, x, 500)
```

```
fill(random(255), 255, 255)
```

```
line(25 + x * 10, random(500), 25 + x * 10, 500);
```

Statements

```
float x = 25 + counter * 5;
```

<i>Name</i>	<i>Value</i>
counter	7

Statements

```
float x = 25 + counter * 5;
```

<i>Name</i>	<i>Value</i>
counter	7

Statements

```
float x = 25 + counter * 5;
```

```
float x = 25 + 7 * 5;
```

<i>Name</i>	<i>Value</i>
counter	7

Statements

float x = 25 + counter * 5;

float x = 25 + 7 * 5;

float x = 25 + 35;

<i>Name</i>	<i>Value</i>
counter	7

Statements

```
float x = 25 + counter * 5;
```

```
float x = 25 + 7 * 5;
```

```
float x = 25 + 35;
```

```
float x = 60;
```

<i>Name</i>	<i>Value</i>
counter	7

Statements

```
float x = 25 + counter * 5;
```

```
float x = 25 + 7 * 5;
```

```
float x = 25 + 35;
```

```
float x = 60;
```

<i>Name</i>	<i>Value</i>
counter	7
x	60

Thinking like a Programmer

Finding patterns, then exploiting them

Loops

For every
row/column...

Do something
35 times...

Functions

Do this here,
and here,
and here...

Do this a little
differently...

Variables

Keep track
of...

A little larger
every time I...

Conditions

Then, when
you reach...

Under certain
conditions...