
Hexi—PS17—2025 - 04 - 11

Exercises from EIWL3 Section 39

```
In[112]:= {x, x + 1, x + 2, x ^ 2} /. x → RandomInteger[100]
```

```
Out[112]= {99, 100, 101, 9801}
```

```
In[113]:= {x, x + 1, x + 2, x ^ 2} /. x ⇨ RandomInteger[100]
```

```
Out[113]= {86, 53, 43, 8281}
```

Exercises from EIWL3 Section 40

```
In[114]:= f[n_] := n ^ 2;  
f[11]
```

```
Out[115]= 144
```

```
In[116]:= poly[n_] := Graphics[{Orange, RegularPolygon[n]}];  
poly[3]
```

```
Out[117]=
```



In[118]:=

```
Clear[f]
f[x_, y_] = {y, x};
f[a, b]
```

Out[120]=

```
{b, a}
```

In[121]:=

```
Clear[f]
f[x_, y_] := x y / (x + y);
f[4, 5]
```

Out[123]=

$$\frac{20}{9}$$

In[124]:=

```
Clear[f]
f[x_, y_] := {x + y, x - y, x / y};
f[4, 5]
```

Out[126]=

$$\left\{9, -1, \frac{4}{5}\right\}$$

In[127]:=

```
evenodd[x_] := Which[x == 0, Red, EvenQ[x], Black, OddQ[x], White];
evenodd[1]
evenodd[0]
evenodd[4]
```

Out[128]=



Out[129]=



Out[130]=



In[131]:=

```
Clear[f]
f[x_, y_, z_] := Which[x == 1, y + z, x == 2, y z, x == 3, y ^ z];
f[1, 9, 5]
```

Out[133]=

```
14
```

In[134]:=

```
Clear[f]
f[n_] := If[n == 0 || n == 1, 1, f[n - 1] + f[n - 2]];
f[1]
f[5]
```

Out[136]=

1

Out[137]=

8

In[138]:=

```
animal[name_] := EntityValue[Interpreter["Animal"][name], "Image"];
animal["Cat"]
```

Out[139]=



In[140]:=

```
nearwords[String_, n_] := Nearest[WordList[], String, n];
nearwords["cat", 5]
```

Out[141]=

{cat, at, bat, cab, cad}