Eli — PS 17 — 2025-04-11

In[242]:=
```
(*39.1*)
x = RandomInteger[100];
{x, x + 1, x + 2, x^2}
```
Out[243]=
```
{2, 3, 4, 4}
```

7/8

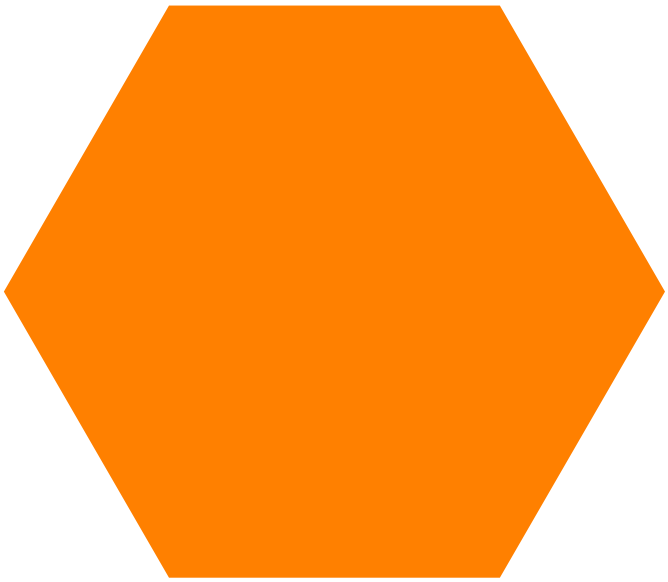
See comments on 40.6 to 40.9.

In[244]:=
```
(*39.2*)
```

In[245]:=
```
x := RandomInteger[100];
{x, x + 1, x + 2, x^2}
```
Out[246]=
```
{2, 20, 29, 121}
```

In[247]:=
```
(*40.1*)f[n_] := n^2;
f[3]
```
Out[248]=
```
9
```

In[249]:=
```
(*40.2*)poly[n_] := Graphics[Style[RegularPolygon[n], Orange]];
poly[6]
```
Out[250]=



In[251]:=
```
(*40.3*)g[a_, b_] := Reverse[{a, b}];
g[2, 3]
```
Out[252]=
```
{3, 2}
```

In[253]:=
```
(*40.4*)h[a_, b_] := (a b) / (a + b)
h[1, 2]
```
Out[254]=
$$\frac{2}{3}$$

In[255]:=
```
(*40.5*)i[a_, b_] := {a + b, a - b, a / b}
i[2, 3]
```
Out[256]=
$$\left\{5, -1, \frac{2}{3}\right\}$$

In[257]:=
```
(*40.6*)
```

In[258]:=
```
evenOdd[n_] := If[n == 0, Red, If[EvenQ[n] == True, Black, White]]
evenOdd[2]
```
Out[259]=
■

Wolfram was looking for you to take a different approach, but this gives the right answer.

In[260]:=
```
(*40.7*)j[a_, b_, c_] := If[a == 1, b + c, If[a == 2, b c, If[a == 3, b ^ c, Null]]]
j[3, 2, 3]
```
Out[261]=
```
8
```

Same comment as 40.6. See my solution.

In[262]:=
```
(*40.8*)l[n_] := {
  l[0] = 1,
  l[1] = 1,
  l[n - 1] + l[n - 2]}
l[3]
```
Out[263]=
```
{1, 1, {2, 2, 3}}
```

Yes, this is closer to the approach he was looking for on these, but the syntax isn't right. l[3] should just give 3, not {1,1,{2,2,3}]. See my solution.

In[264]:=
```
(*40.9*)animal[n_String] := Interpreter[n]["Animal"]["Image"]
(*for some reason, even basic uses of entities are not working right now*)
animal["tiger"]
```
Out[265]=
```
Missing[NotAvailable, Image]
```

You have the order wrong. It is Interpreter[“Animal”][n][“Image”

In[266]:=

In[267]:=
```
(*40.10*) nearWords[word_String, n_] := (
  p = Flatten[Position[WordList[], word]];
  Nearest[WordList[], word, n])
nearWords["grape", 5]
```
Out[268]=
```
{grape, crape, drape, gape, grace}
```
In[269]:=

In[270]:=
```
MapApply[f, expr]
```
Out[270]=
```
expr
```
In[271]:=
```
MapApply[ToUpperCase, {{"a"}}]
```
Out[271]=
```
{A}
```
In[272]:=
```
MapApply[evenOdd, {{1}, {2}, {3}}]
```
Out[272]=
```
{□, ■, □}
```