```
In[46]:= a[1] = 1;

a[2] = 1;

a[3] = -5;

In[49]:= a[n_] := 6 * a[n - 1] - 11 * a[n - 2] + 6 * a[n - 3];

In[50]:= Select[Table[a[n], \{n, 1, 20\}], # > -150000000 &]

Out[50]:= \{1, 1, -5, -35, -149, -539, -1805, -5795, -18149, -55979, -171005, -519155, -1569749, -4733819, -14250605\}

In[51]:= FindSequenceFunction[\{1, 1, -5, -35, -149, -539, -1805, -5795, -18149, -55979\}, n]
Out[51]:= -2 + 3 \times 2^{n} - 3^{n}
```