Mètode d'Aitken

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Successió convergent (ordre baix)

$$x_n = \cos\left(\frac{1}{n}\right)$$

```
clear, clc
f = @(x)(cos(1/x));
format short g
maxIterations = 7;
for i = 1 : maxIterations
    x(i) = f(i);
end
iterats=x'
```

```
iterats =
       0.5403
      0.87758
      0.94496
      0.96891
      0.98007
      0.98614
      0.98981
```

Millora Aitken

```
n=length(x);
a(:,1)=x';
for j=1:2
    for i=j:n-1
        a(i+1,j+1)=(a(i+1,j)-a(i,j));
    end
end
for i=2:n-1
    a(i+1,4)=a(i+1,1)-a(i+1,2)^2/a(i+1,3);
end
aitken=a(:,[1,4])
```

```
aitken =
       0.5403            0
      0.87758            0
      0.94496      0.96178
```

```
      0.96891      0.98213
      0.98007      0.98979
      0.98614      0.99342
      0.98981      0.99541
```

```
millora=abs(aitken-1)
```

```
millora =
       0.4597            1
      0.12242            1
     0.055043     0.038225
     0.031088     0.017871
     0.019933     0.010214
     0.013857    0.0065844
     0.010187    0.0045901
```

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