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> restart;
> A := 4; B := -4;

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$$\begin{aligned} A &:= 4 \\ B &:= -4 \end{aligned} \tag{1}$$

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> x[0] := 1/8;

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$$x_0 := \frac{1}{8} \tag{2}$$

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> n := 10;

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$$n := 10 \tag{3}$$

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> for k from 0 by 1 to n - 1 do
  x[k + 1] := A·x[k] + B·x[k]2 : # 4·x - 4·x2 = 4·x·(1 - x)
  #print(sort(collect(x[k + 1], x[1]), x[1]));
end;

```

$$x_1 := \frac{7}{16}$$

$$x_2 := \frac{63}{64}$$

$$x_3 := \frac{63}{1024}$$

$$x_4 := \frac{60543}{262144}$$

$$x_5 := \frac{12205529343}{17179869184}$$

$$x_6 := \frac{60714450891379454463}{73786976294838206464}$$

$$x_7 := \frac{793691201634606788015885781974189630463}{1361129467683753853853498429727072845824}$$

$$x_8 := \frac{450370759234005235125033723536876682628919328750073512226316968856327835142143}{46316835694926478169428394003475163141307993866256225615783033603165251855974} \backslash 4$$

$$x_9 := \frac{57636637993928127327839706406590300822278600379443213200480334273978217598127 \backslash 20741589224187449940969725196233210141361579468966806292277224841698863058943}{53631231719770388398296099992823384509917463282369573510894245774887056120294 \backslash 18790720749719266761371076012743274594420341501553124778627978573459602433638} \backslash$$

4

$x_{10} :=$

(4)

27589256838765693744122143460050959388179507858474617398825237763660428487577\
04277589282165000772565807347357488043946214836447016588555075503077564244346\
10797226678289330490385850541489087073137878157474430673224504479627346391894\
47581971006547991342440750862684034986807110745393671754767364375462675920486\
3/

71907725394492636309172207631560989344719079157692262909372032463093070322200\
38525308339092896301440844804555194855734306351590752576664899713897225578964\
97511071573699461941105208878404984376477812331808340023075352602729369851525\
89565244216330894865340204273834519295978898375391886521934142531849689654886\
4

