Number of time periods (value of yr/t)

declare and initialize integer n

Generate P and B sequence for n time periods

P = 1 by n matrix of non-negative numbers

B = a different 1 by n matrix of non-negative numbers

D = P - B

Set up and solve Andre's equation

declare symbolic variable A

LHS =

RHS =

solns = solutions to the equation:

Reasonability checks on solutions

A\_vals = solns

Check 1: Discard complex solutions

for each i between 1 and (length of A\_vals)

if ith element of A\_vals is complex then

remove the ith element of A\_vals

end if

end for

Check 2: Discard unbounded solutions

for each i between 1 and (length of A\_vals)

if ith element of A\_vals is greater than the maximum value in D or smaller than the minimum value in D then

remove the ith element of A\_vals

end if

end for

Check 3: Discard non-monotonic solutions

deriv = symbolic derivative of RHS, with respect to A

for each i between (length of A\_vals) and 1

slope = value of deriv when A is the ith element of A\_vals

if slope < 0 then

remove the ith element of A\_vals

end if

end for

Check 4: Pick solution closest to naive difference

naive =

index = index of element of A\_vals that is closest to naive

output indexth element of A\_vals