

```

reset();
question1:= proc(n,m)
begin;
N:=matrix(n,m, (i,j) -> (i+j-2)! / ((i-1)! * (j-1)!));
return(N);
end_proc;
question1(4,5)

```

```

proc question1(n, m) ... end

```

$$\begin{pmatrix} 1 & 1 & 1 & 1 & 1 \\ 1 & 2 & 3 & 4 & 5 \\ 1 & 3 & 6 & 10 & 15 \\ 1 & 4 & 10 & 20 & 35 \end{pmatrix}$$

```

reset();
question2:=proc(n)
begin;
if n=1 then
return(3);
else
if n=0 then
return(1);
else
return(question2(n-1)+question2(n-2));
end_if;
end_if;
end_proc;
question2(3)

```

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proc question2(n) ... end

```

7

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reset();
question4:=proc(A,b)
begin;
n:=linalg::nrows(A);
m:=linalg::ncols(A);
x:=matrix(n,1, (i,j) -> 1);

```

```
for i from 1 to 2 do
temp:=A;
for j from 1 to 2 do
temp[j,i]:=b[j,1];
end_for;
x[i,1]:=det(temp)/det(A);
end_for;
return(x);
end_proc;
question4(matrix([[1,2],[3,4]]),matrix([[1],[2]]));
```

```
proc question4(A, b) ... end
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$$\begin{pmatrix} 0 \\ \frac{1}{2} \end{pmatrix}$$

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