## Math 146

## Homework 3

- Solve problems from Wilf's book Section 1.7:

1. 1.abcdf,
2. 2. abcfg
1. 3.abceg
2. 4.abceg,
3. 5
4. 6
5. 11
6. 12
7. 14
8. 16

- What is the coefficient of $x^{n}$ in the power series of $\frac{1+2 x+2 x^{2}}{1-3 x+3 x^{2}-x^{3}}$.
- Find a formula for $a_{n}$ when the sequence is defined by the following linear homogeneous recurrence: $a_{0}=2, a_{1}=0, a_{2}=-2$ and $a_{n+3}-6 a_{n+2}+$ $11 a_{n+1}-6 a_{n}=0$

