```
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 1
Enter polynomial p1 :
Enter number of terms:2
Enter coefficient and exponent (c,e):1,1
Enter coefficient and exponent (c,e):1,3
Enter polynomial p2 :
Enter number of terms:2
Enter coefficient and exponent (c,e):1,0
Enter coefficient and exponent (c,e):1,2
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 5
| 1X^3 + 1X^1 +  + 0 = 0 |
| 1X^2 + 1X^0 +  + 0 = 0 |
```

Command Prompt - polynom.exe

```
---------Polynomial handler program-----------
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
1
Enter polynomial p1 :
Enter number of terms:2
Enter coefficient and exponent (c,e):1,1
Enter coefficient and exponent (c,e):1,3
Enter polynomial p2 :
Enter number of terms:2
Enter coefficient and exponent (c,e):2,0
Enter coefficient and exponent (c,e):2,2
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 2
| 1X^3 + 2X^2 + 1X^1 + 2X^0 +  + 0 = 0 |
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 ■
```

```
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 6
Input from input1.txt:
| 5X^4 + 12X^3 + 4X^2 + 2X^1 +  + 0 = 0 |
Input from input2.txt:
| 1X^4 + 3X^3 + 2X^2 +  + 0 = 0 |
```

```
Input from input1.txt:
| 5X^4 + 12X^3 + 4X^2 + 2X^1 +  + 0 = 0 |
Input from input2.txt:
| 1X^4 + 3X^3 + 2X^2 +  + 0 = 0 |
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 2
| 6X^4 + 15X^3 + 6X^2 + 2X^1 +  + 0 = 0 |
Enter
```

```
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 4
Which polynomial to you wish to modify(1-p1,2-p2):1
Enter
       1 to insert a term
       2 to delete a term
:1
Enter coefficient and exponent:1,5
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 5
| 1X^5 + 1X^3 + 1X^1 +  + 0 = 0 |
| 2X^2 + 2X^0 +  + 0 = 0 |
```

```
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 5
| 1X^3 + 1X^1 +  + 0 = 0 |
| 1X^2 + 1X^0 +  + 0 = 0 |
Enter
 1 to accept 2 polynomials
 2 to add the 2 polynomials
 3 to multiply the 2 polynomials
 4 to modify either of two polynomials
 5 to display both polynomials
 6 to accept two polynomials from input file:
 7 to exit the program
 3
| 1X^5 + 2X^3 + 1X^1 +  + 0 = 0 |
```

Sets Output

```
Command Prompt - sets.exe
C:\Users\Vincent\Code\c-cpp\SE\Labs\DS\LabS\sets>sets.exe
---------Set handler program-----------
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
 1
Enter set A :
Enter number of items:3
Enter value:1
Enter value:2
Enter value:3
Enter set p2 :
Enter number of items:3
Enter value:3
Enter value:4
Enter value:5
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
 2
{ 1 , 2 , 3 , 4 , 5 ,  }
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
```

```
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
 3
{ 3 ,  }
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
 4
Enter 1 for A-B, 2 for B-A:1
{ 1 , 2 ,  }
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
 4
Enter 1 for A-B, 2 for B-A:2
{ 4 , 5 ,  }
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
```

```
Enter
 1 to accept 2 sets
 2 to perform set union
 3 to perform set intersection
 4 to perform set difference
 5 to display both sets
 6 to exit
 5
Set 1: { 1 , 2 , 3 ,  }
Set 2: { 3 , 4 , 5 ,  }
```