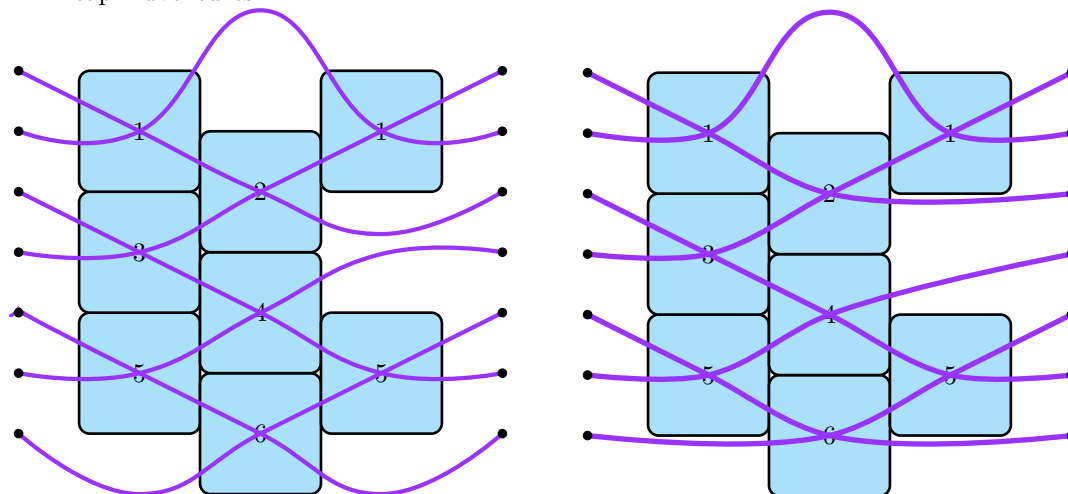Heap Adventures

Experiments for Thesis . . .

Example 1.4.1

s_2 s_4 s_6

s_1 s_3 s_5

s_0 s_4

s_1

Example 1.4.2

2	4	6
1	3	5
0		4
1		

Example 1.4.3

0	2	4
	3	
	2	
1		

0		4
	3	
	2	
1	3	

2
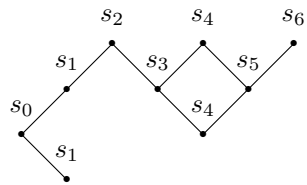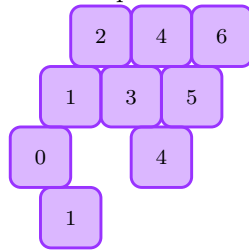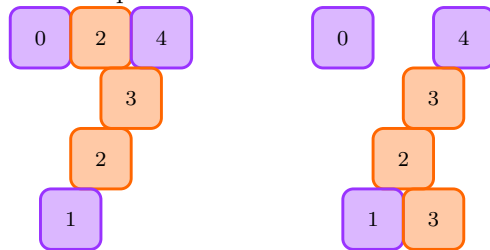
Finite Irreducible Coxeter Graphs Figure
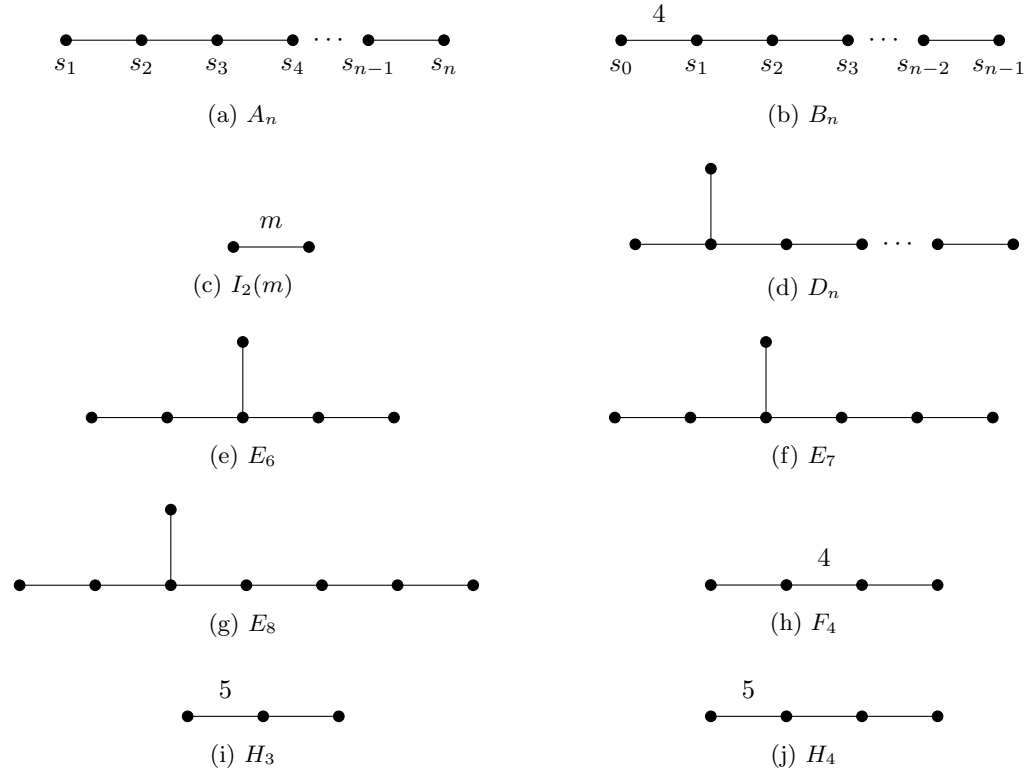
Figure 1: Coxeter graphs corresponding to the finite Coxeter groups.
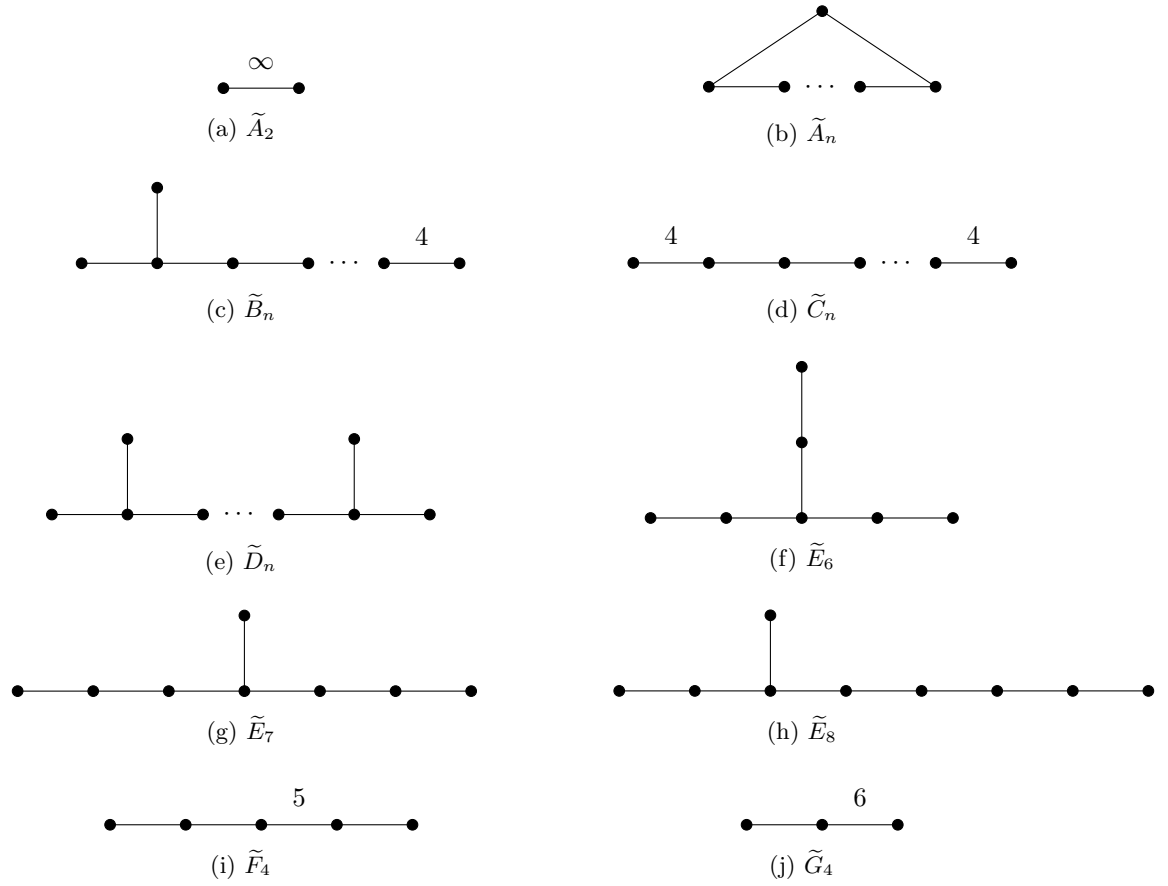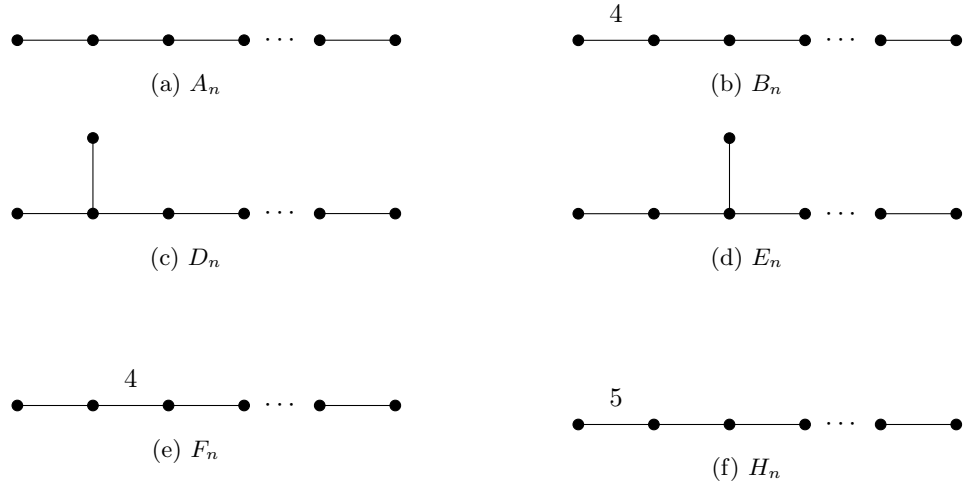
Affine Coxeter Graphs Figure

(a) $\widetilde{A}_2$

(b) $\widetilde{A}_n$

(c) $\widetilde{B}_n$

(d) $\widetilde{C}_n$

(e) $\widetilde{D}_n$

(f) $\widetilde{E}_6$

(g) $\widetilde{E}_7$

(h) $\widetilde{E}_8$

(i) $\widetilde{F}_4$

(j) $\widetilde{G}_4$

Figure 2: Coxeter graphs corresponding to the infinite Coxeter groups

FC-finite Coxeter Groups

(a) A_n

(b) B_n

(c) D_n

(d) E_n

(e) F_n

(f) H_n

Figure 3: Coxeter graphs corresponding to the FC-finite Coxeter groups.

Star Reducible Heaps

(a) I don't know what to call this

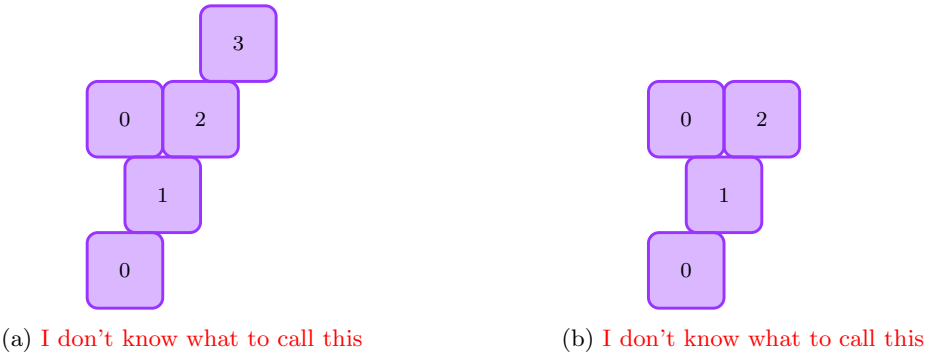
(b) I don't know what to call this

Figure 4: Visualization of Example ??
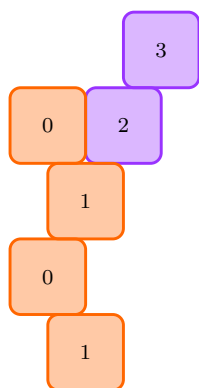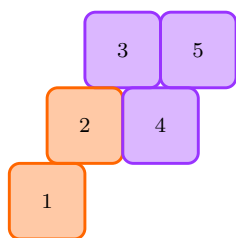
Weak Star Reducible Heap

Figure 5: I don't know what to call this

Heaps for Property-T Section

(a) Heap of an element with Property-T

(b) Heap of a T-Avoiding element

Figure 6: Heaps of an element with Property-T and a T-Avoiding element
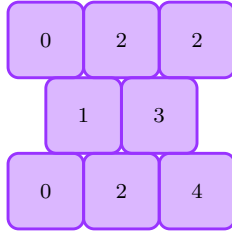
Figure 7: Heap of a non-trivially T-Avoiding element in $W(\widetilde{C}_4)$.
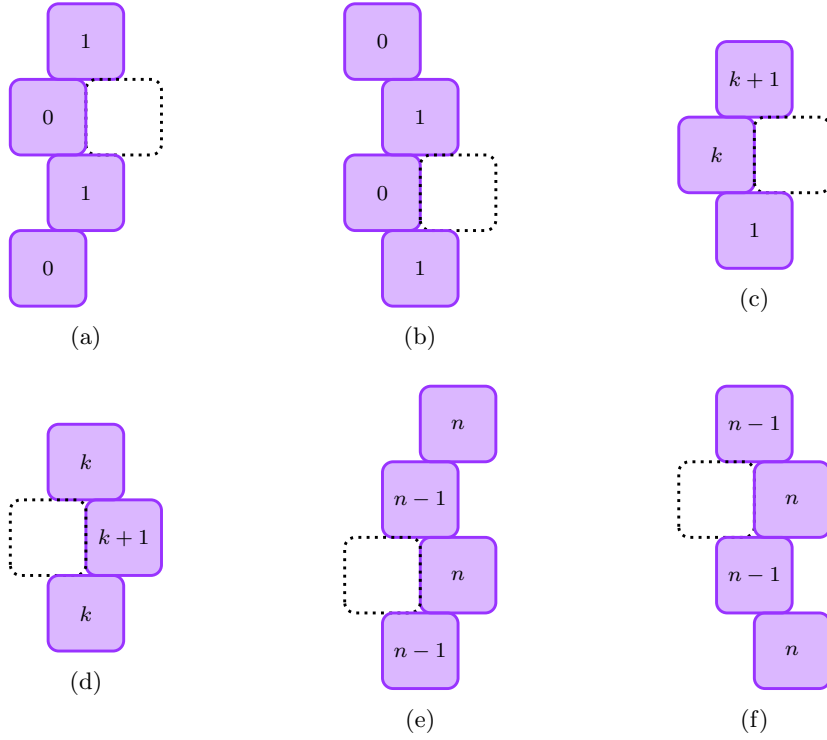
Impermissible subheaps for elements in FC groups

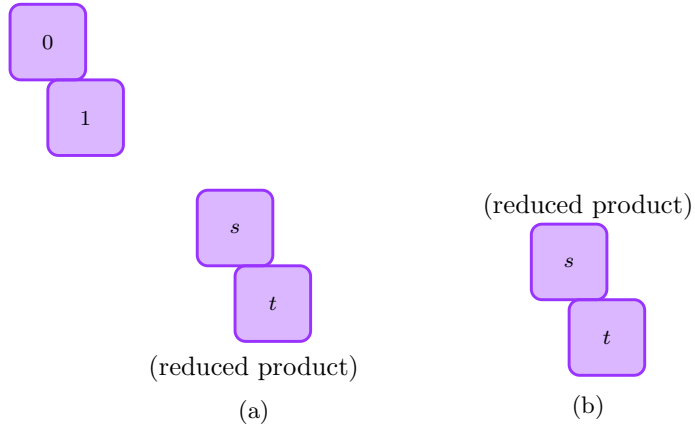Figure 8: Impermissible subheaps for elements in $\mathrm{FC}(\widetilde{C}_n)$.

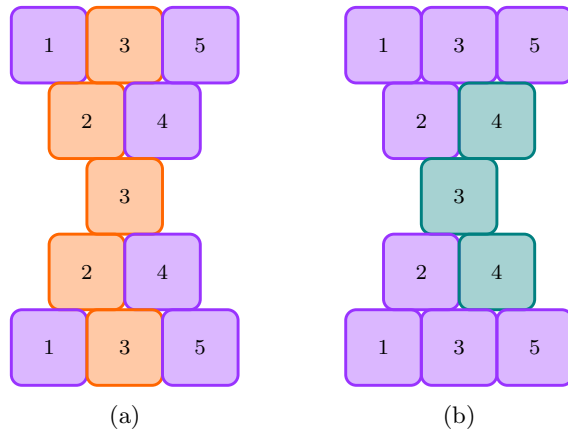Figure 9: A visual representation of Property T.

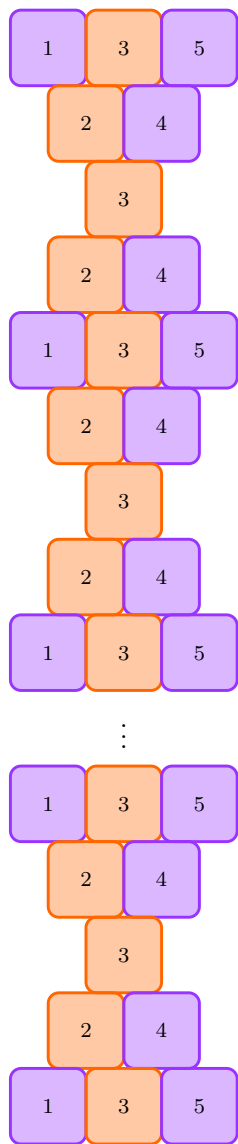Single Bowtie

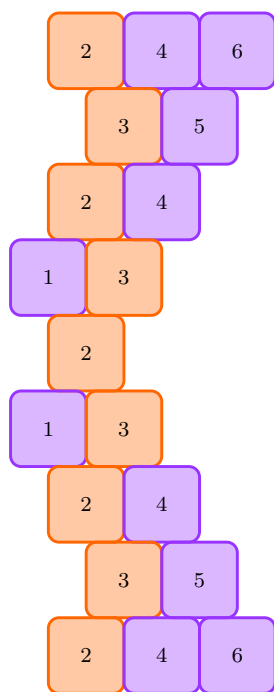Figure 10: A single bowtie in $W(F_5)$.

Figure 11: A stack of bowties in $W(F_5)$.

Figure 12: A non-trivial T-avoiding element in $W(F_6)$