

Supplemental material: Visual Algebra (Math 4120), HW 1

#1(f): Cayley table for the group **Sq** of symmetries of the square.

	1	r	r^2	r^3	f	rf	r^2f	r^3f
1								
r								
r^2								
r^3								
f								
rf								
r^2f								
r^3f								

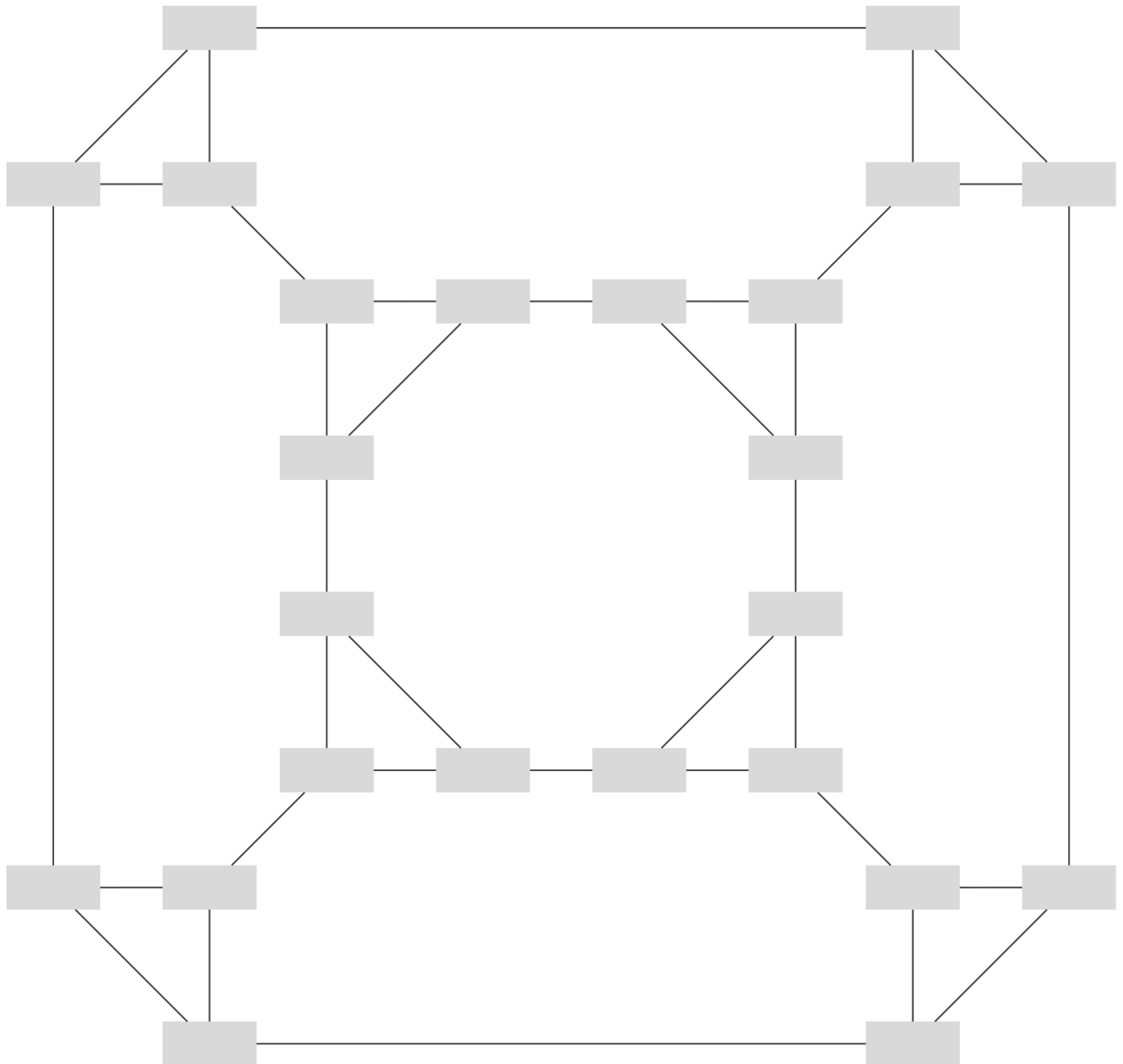
#2(a): Cayley table for the first mystery group, $G = \langle s, t \rangle$.

[illegible]

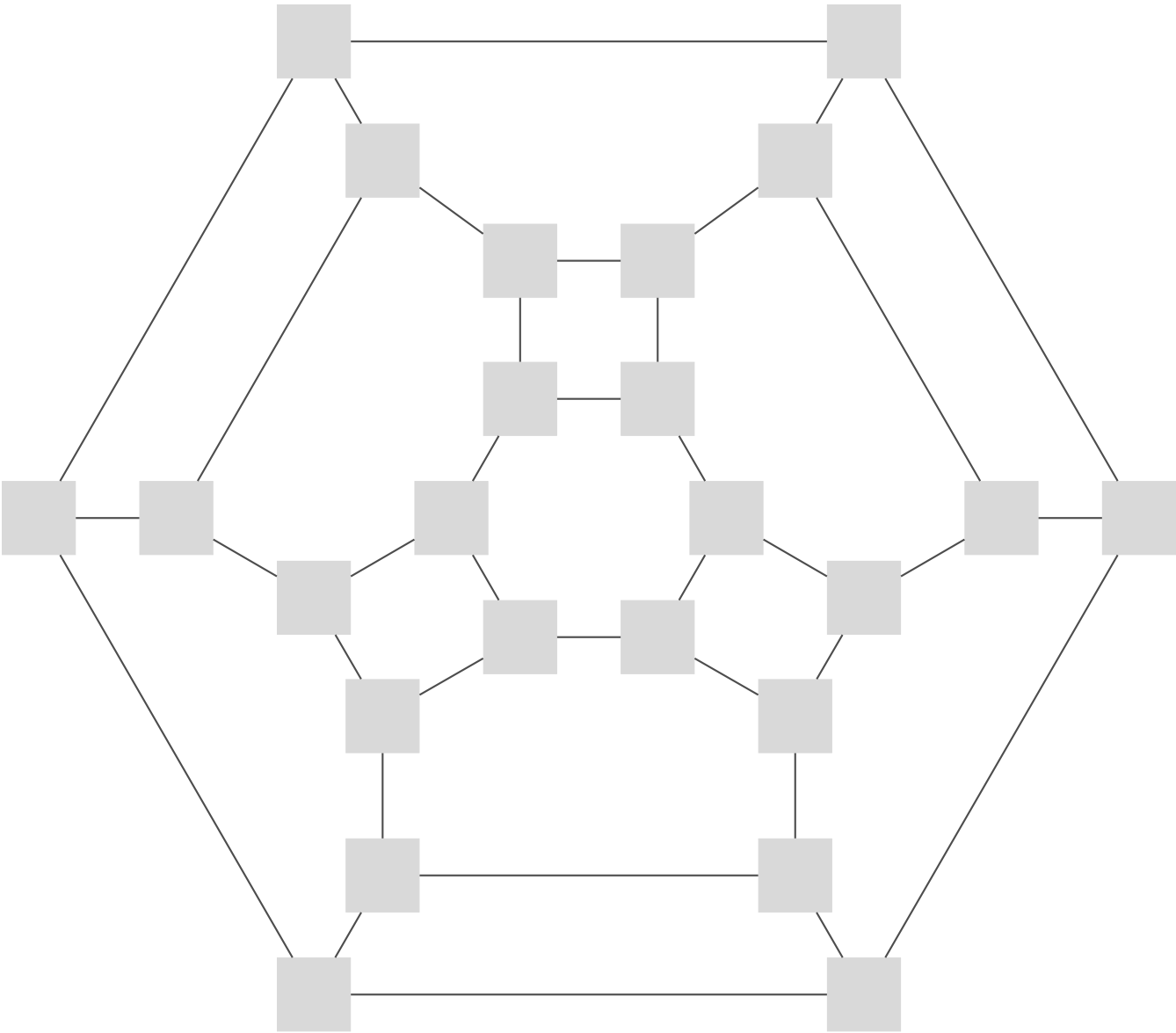
#2(a): Cayley table for the second mystery group, $G = \langle a, x \rangle$.

[illegible]

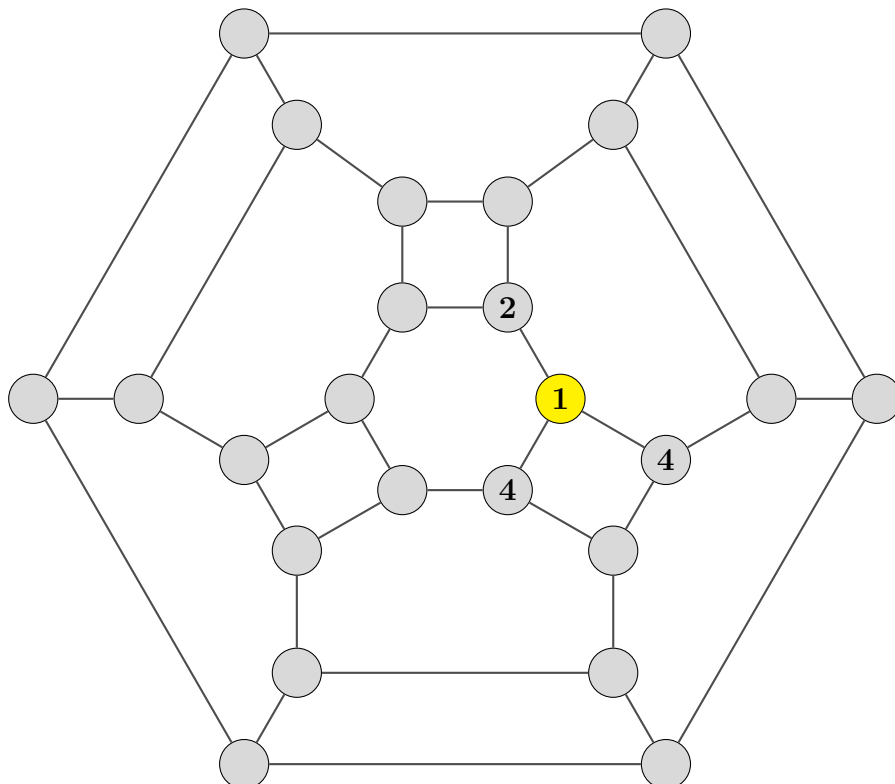
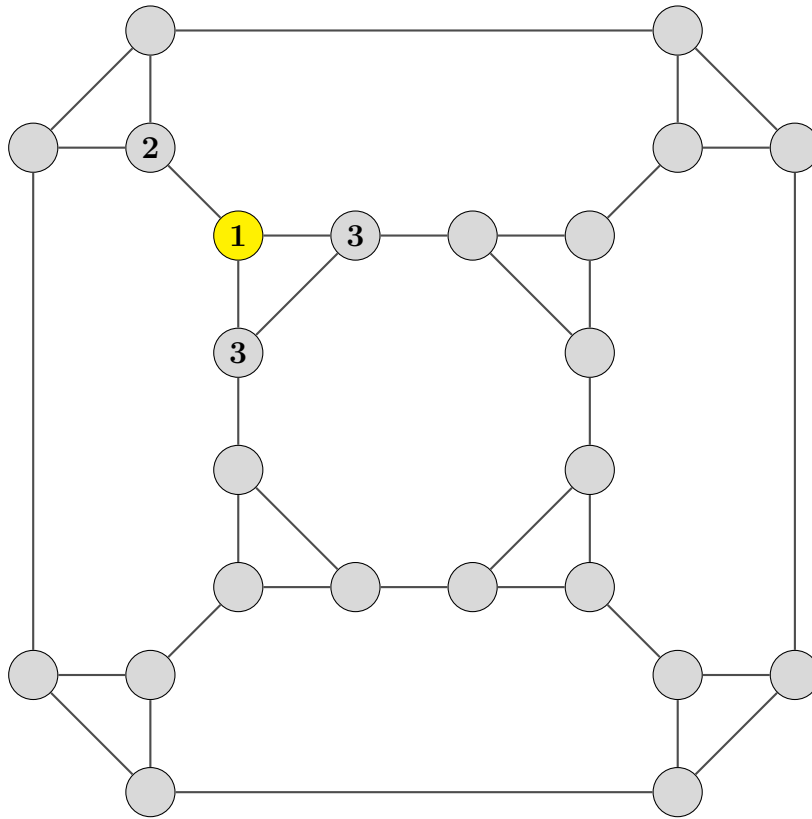
#**3(a)**: Cayley graph for the first mystery group, labeled with 1×3 tiles.



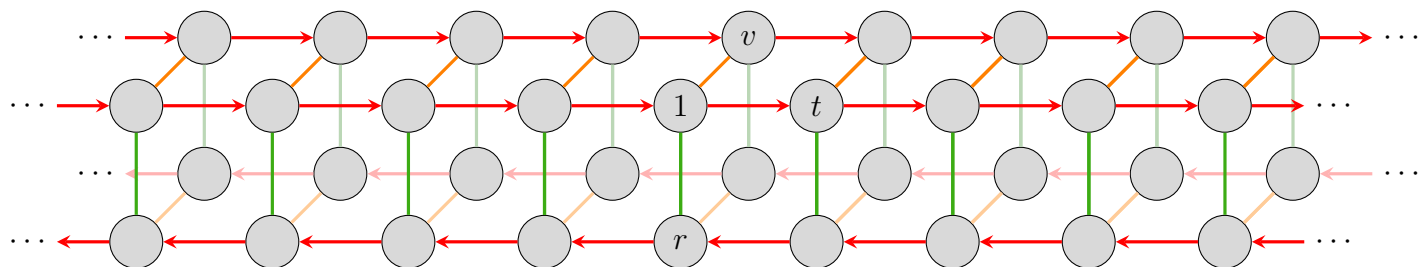
#3(a): Cayley graph for the second mystery group, labeled with square tiles.



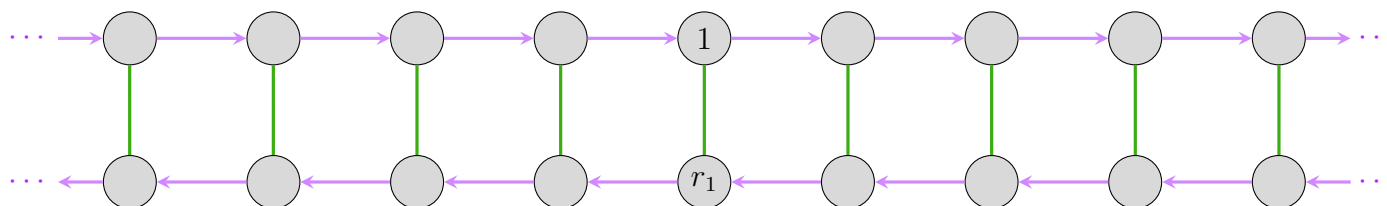
#3(b): Cayley graphs for the mystery group, with the nodes labeled by the *order* of the corresponding element.



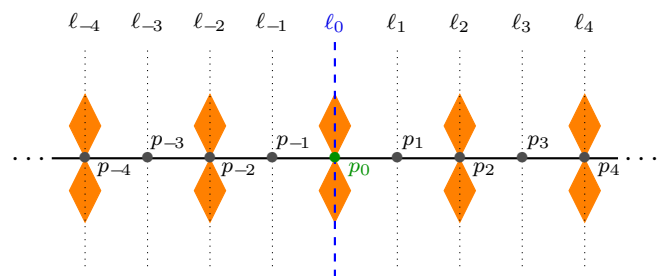
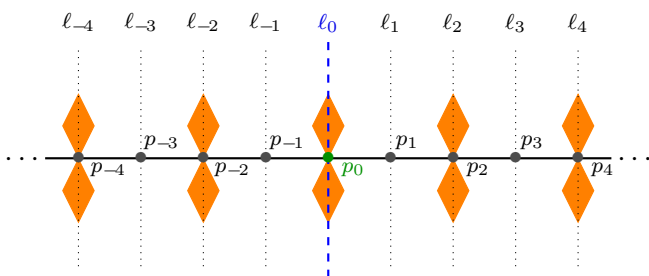
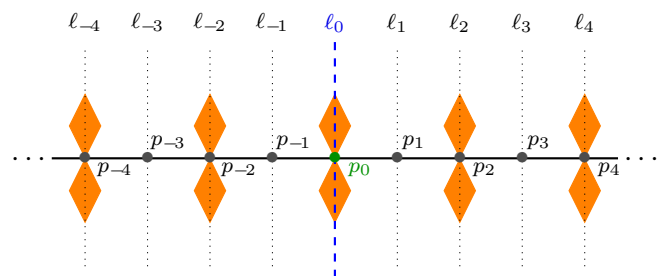
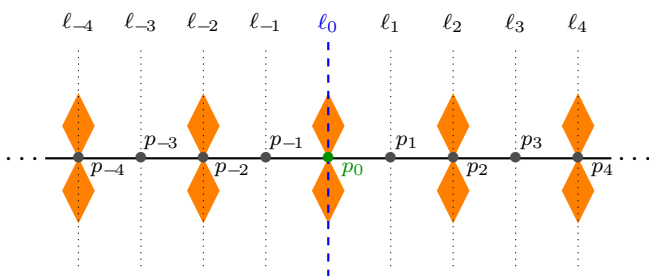
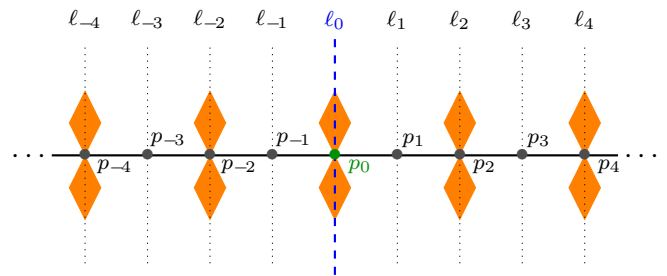
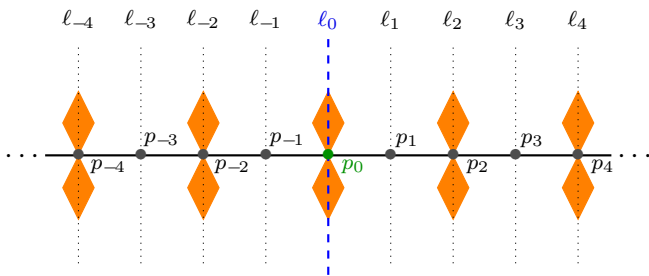
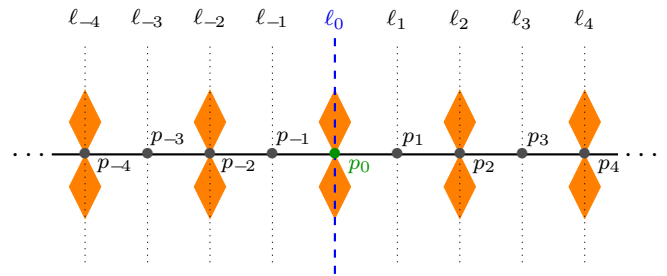
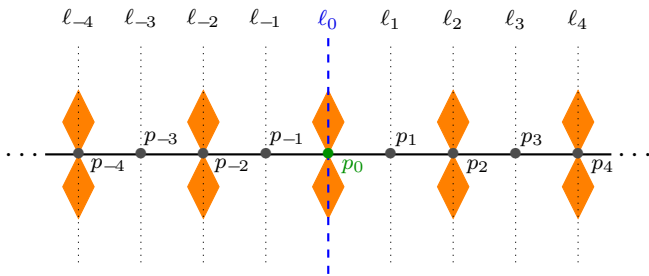
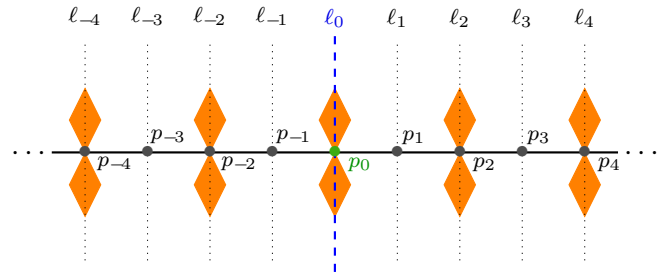
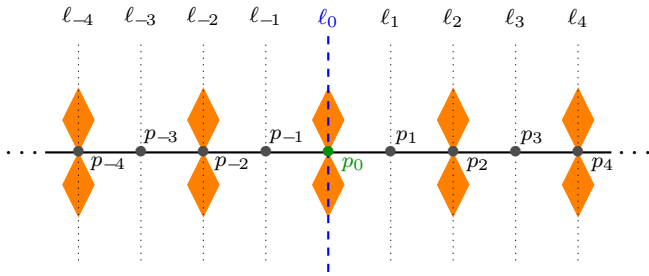
#4(a): Cayley graph for the frieze group $\mathbf{Frz}_1 = \langle t, v, r \rangle$, generated by a translation, vertical reflection, and 180° rotation.



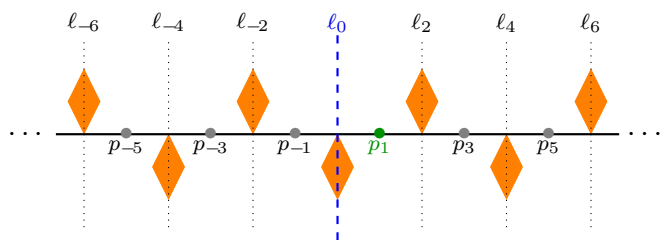
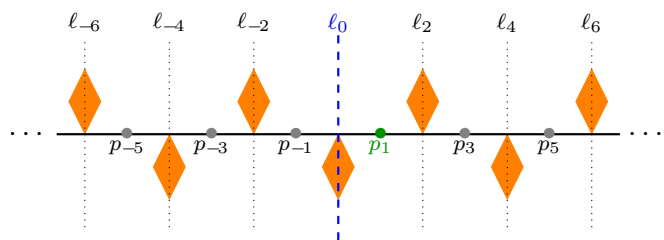
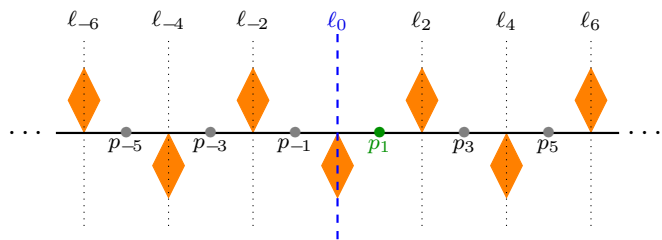
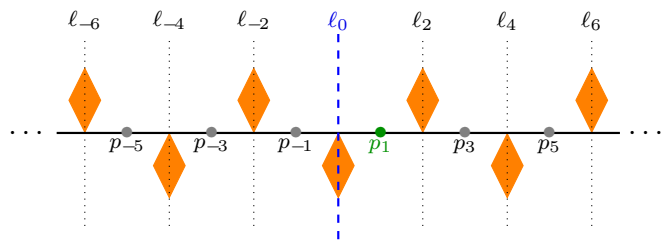
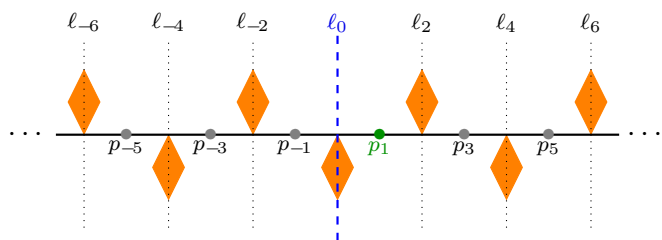
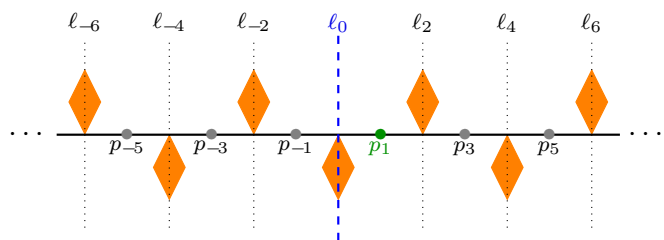
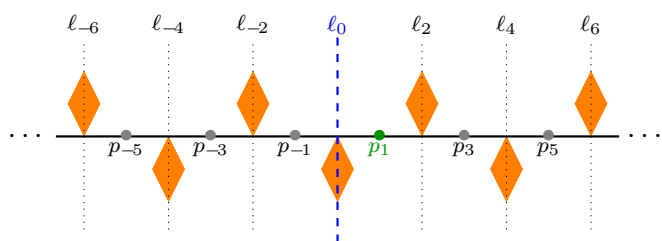
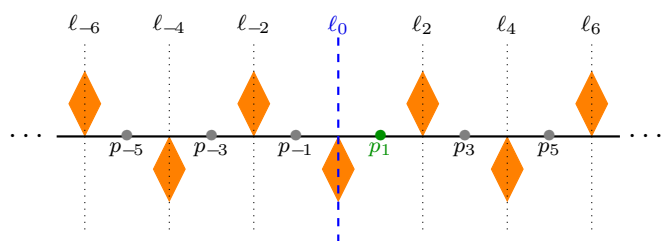
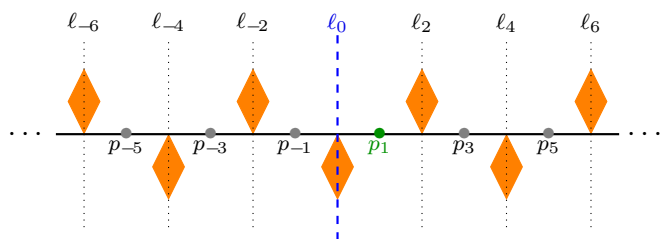
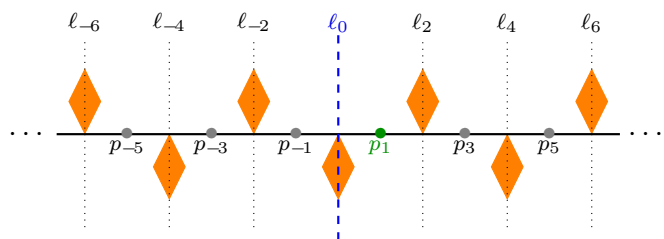
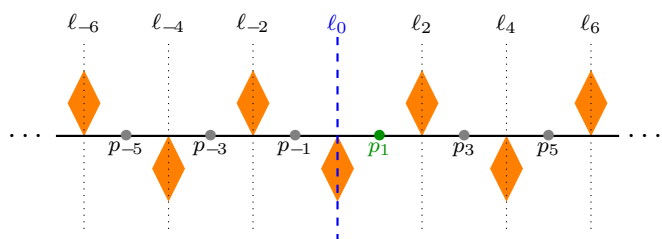
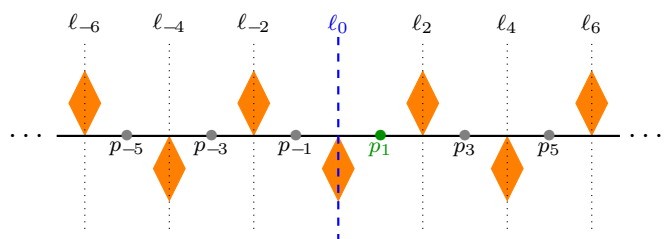
#4(d): Cayley graph for the frieze group $\mathbf{Frz}_2 = \langle g, r \rangle$, generated by a glide reflection and a 180° rotation.



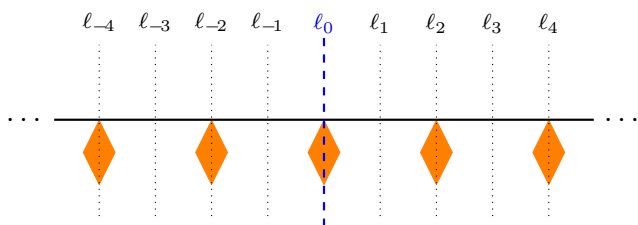
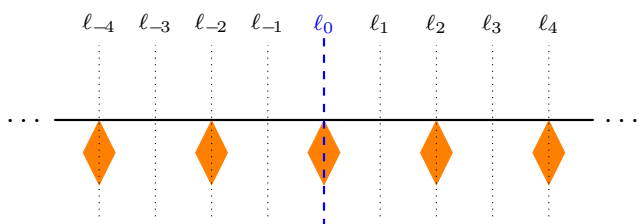
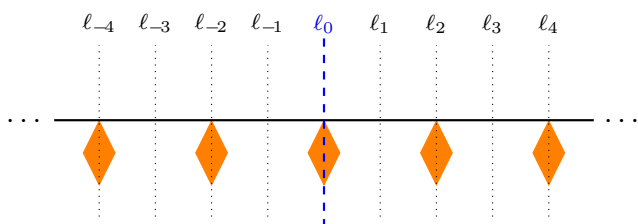
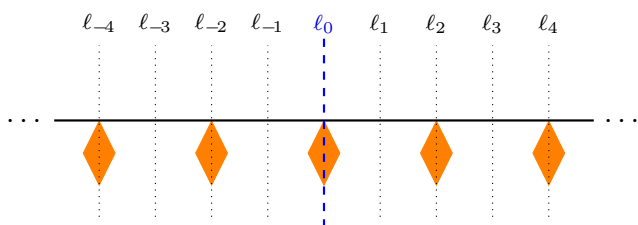
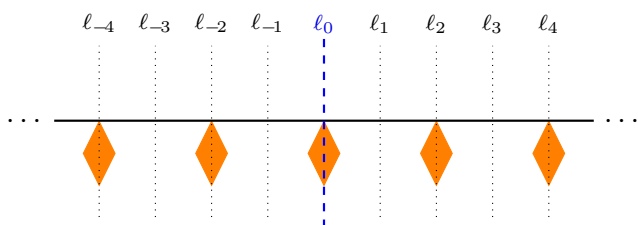
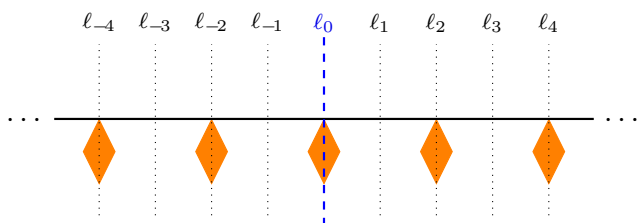
Blank copies of **Frieze 1** to use as scratch paper for problems 4 and 5.



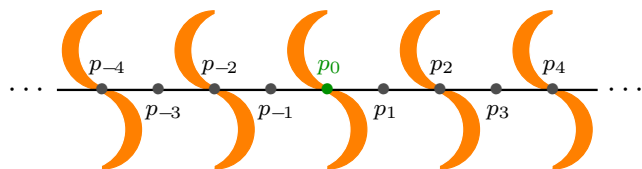
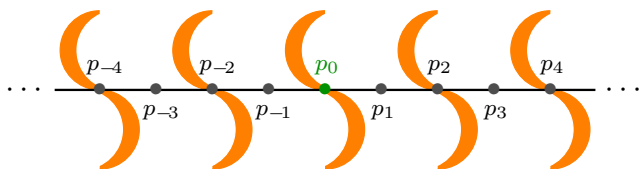
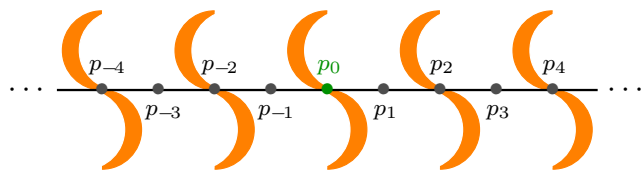
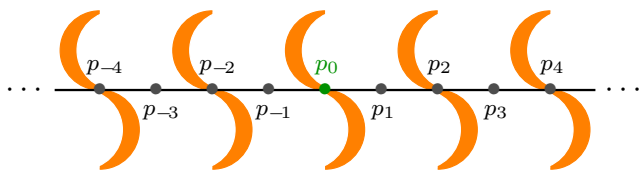
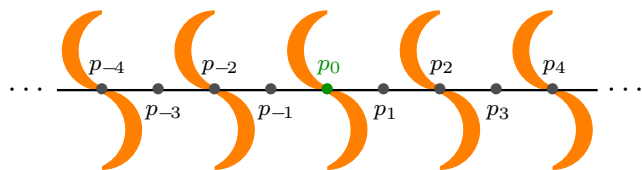
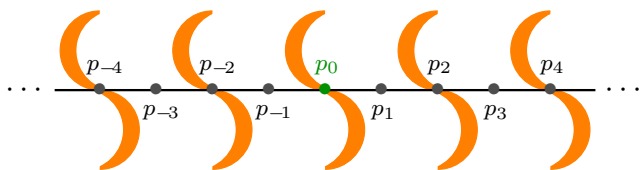
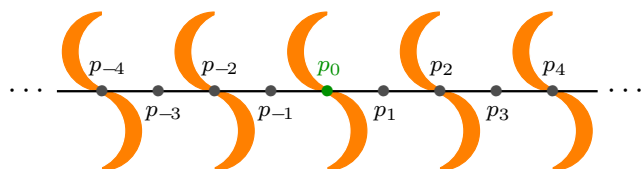
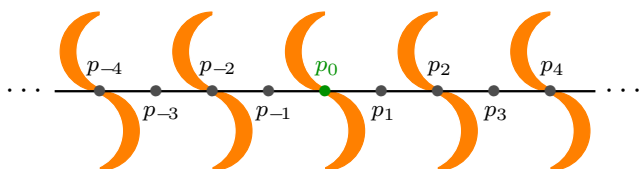
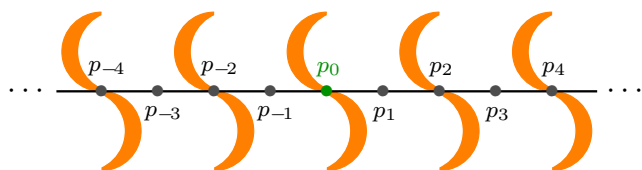
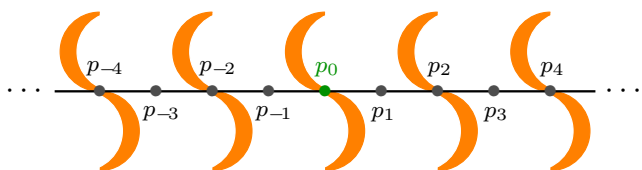
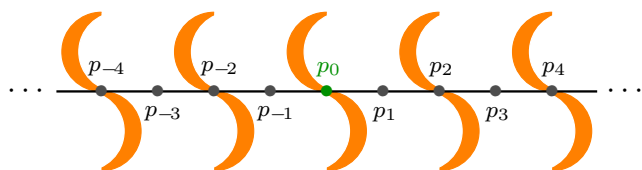
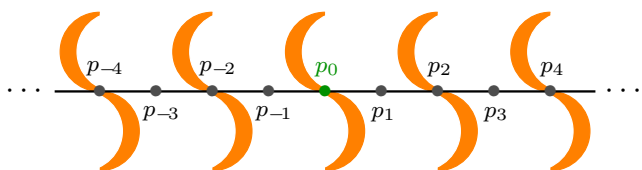
Blank copies of **Frieze 2** to use as scratch paper for problems 4 and 5.



Blank copies of **Frieze 3** to use as scratch paper for problems 4 and 5.



Blank copies of **Frieze 4** to use as scratch paper for problems 4 and 5.



Blank copies of **Friezes 5–7** to use as scratch paper for problems 4 and 5.

