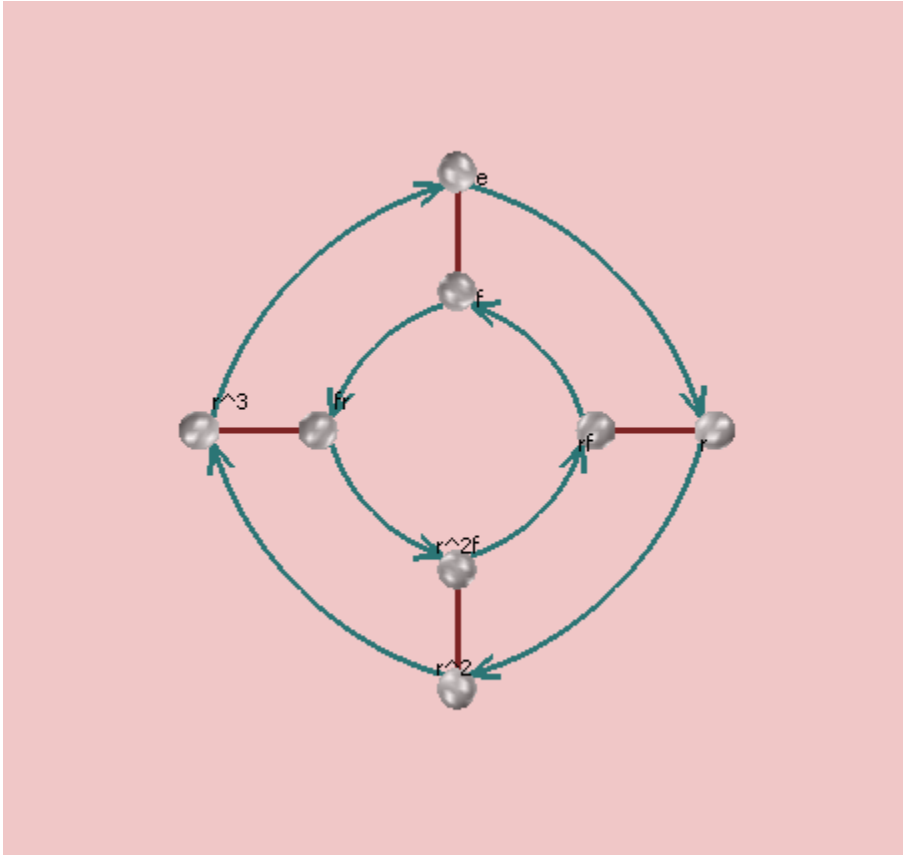


PRACTICE – VISUAL GROUP THEORY – ANSWERS

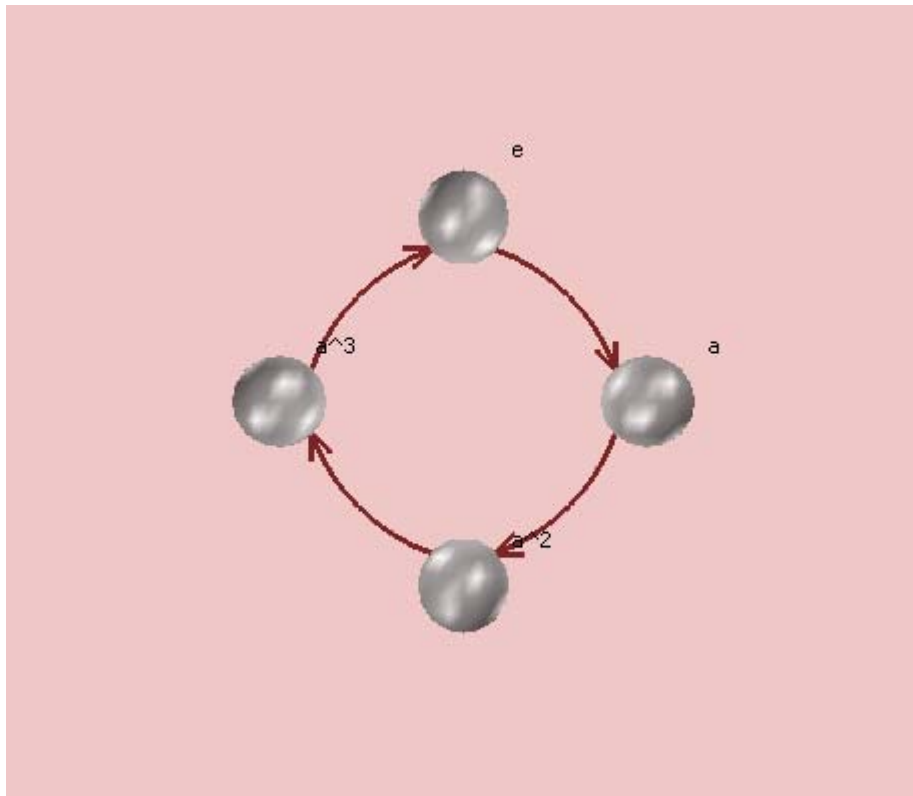
Each of the graphs below was created by the program Group Explorer.

1. Draw a Cayley graph for D_4 , the group of symmetries of the square.

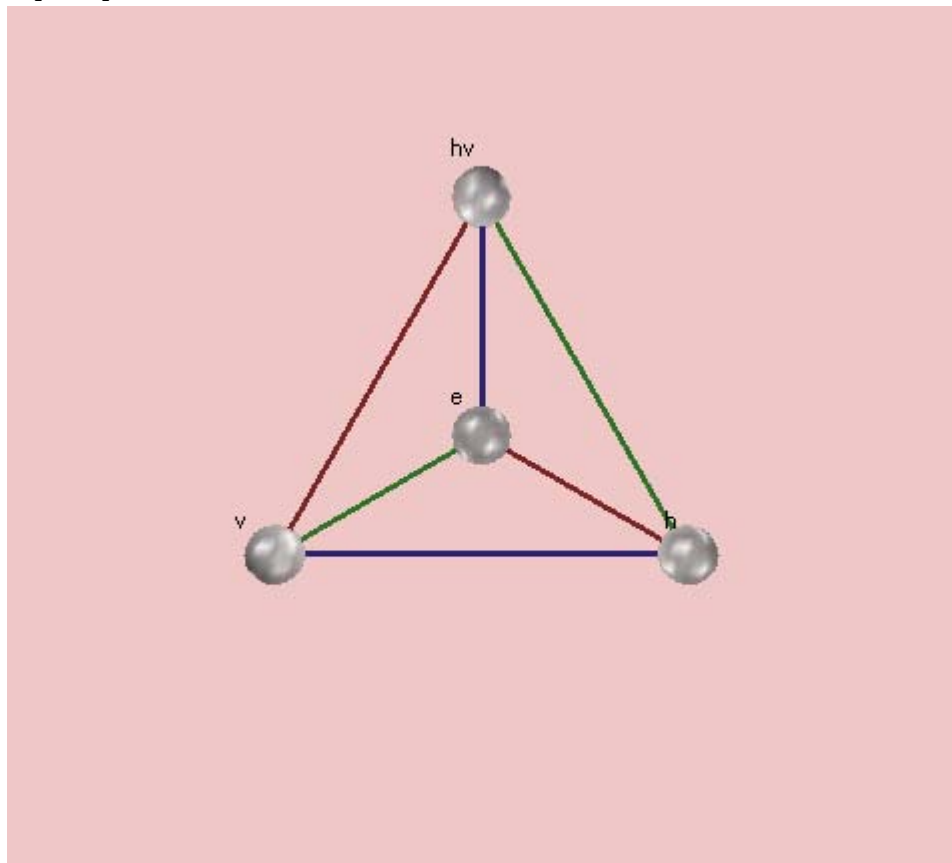


2. Draw a Cayley graph for each of the abelian groups below of order 4.

a. \mathbb{Z}_4

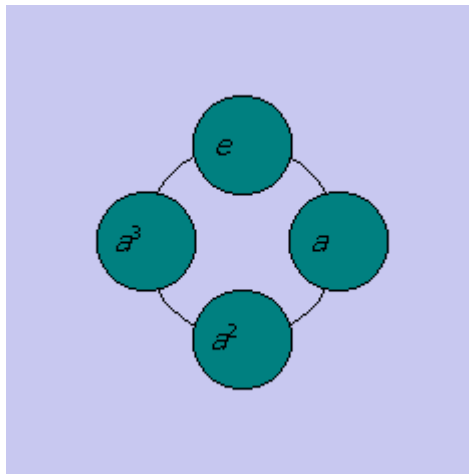


b. $\mathbb{Z}_2 \oplus \mathbb{Z}_2$

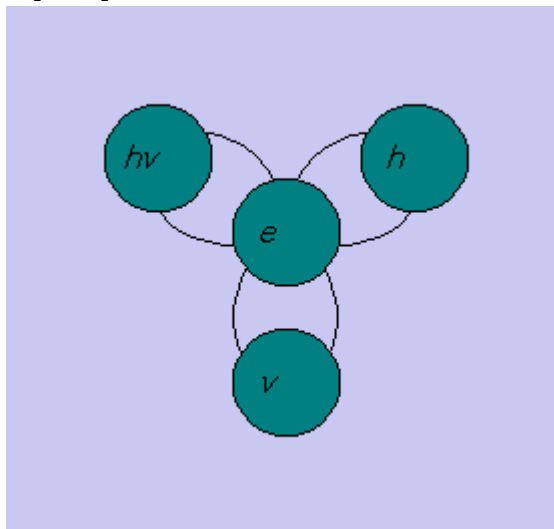


3. Draw cycle graphs for each of the abelian groups below of order 4.

a. \mathbb{Z}_4

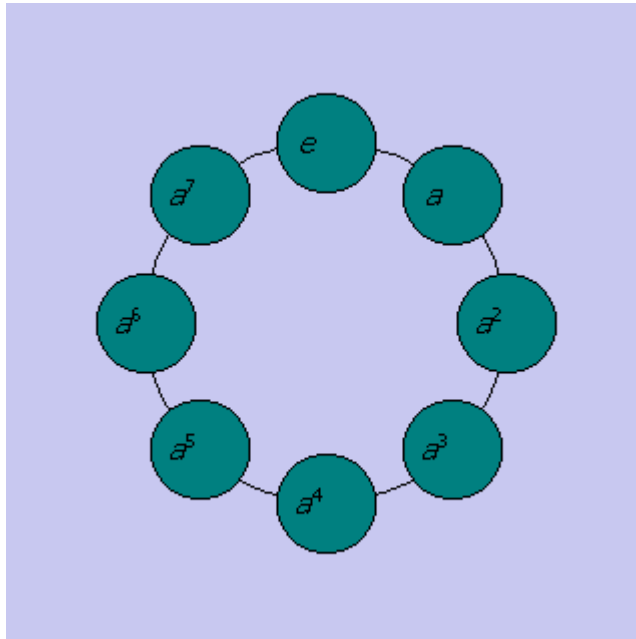


b. $\mathbb{Z}_2 \oplus \mathbb{Z}_2$

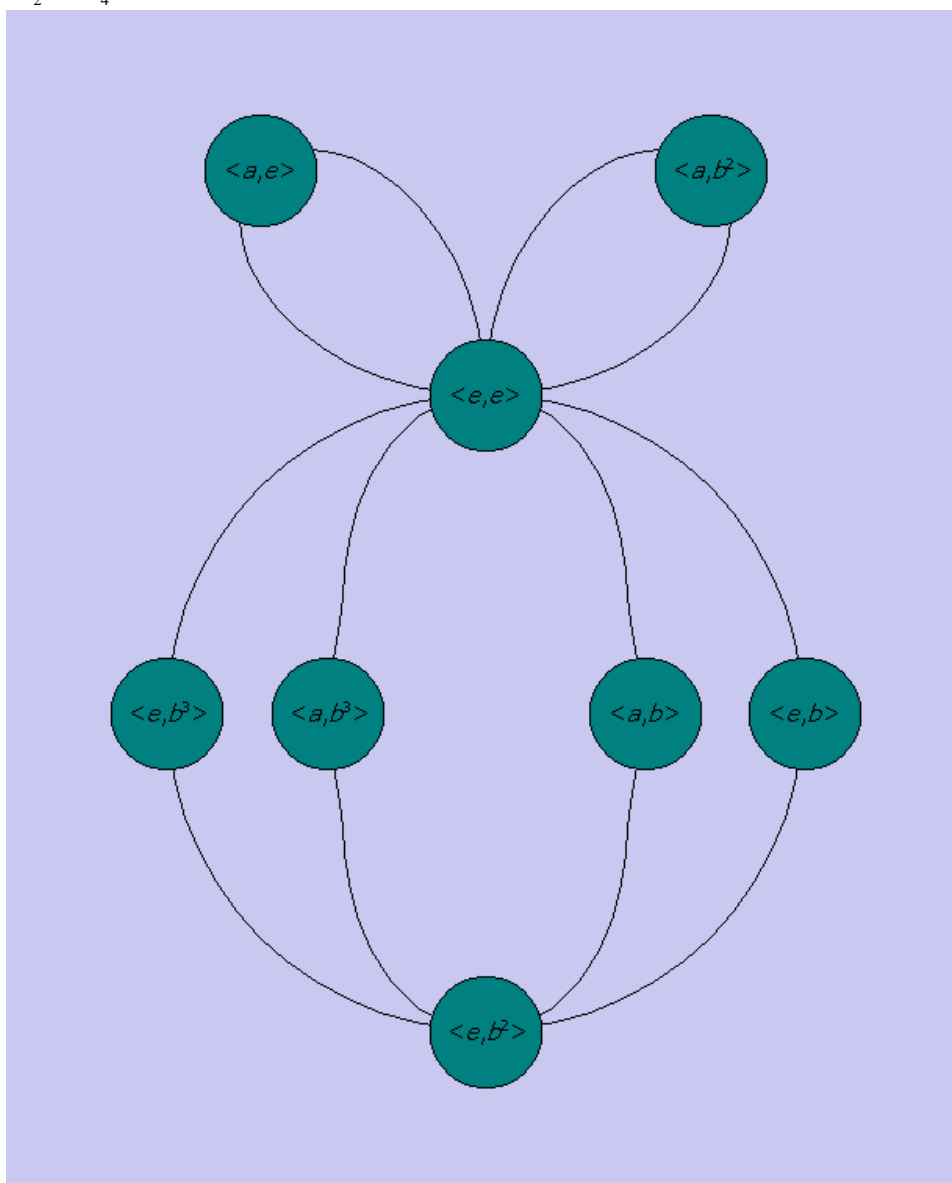


4. Draw cycle graphs for each of the abelian groups below of order 8.

a. \mathbb{Z}_8



b. $\mathbb{Z}_2 \oplus \mathbb{Z}_4$



c. $\mathbb{Z}_2 \oplus \mathbb{Z}_2 \oplus \mathbb{Z}_2$

