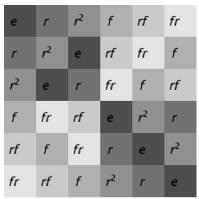
MG 5860: Visual Group Theory (Summer 2009) Quiz 6 (20 points)

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Instructions: Answer each of the following questions completely. If something is unclear, or if you have any questions, then please ask. Good luck!

- 1. (4 points each) Define each of the following families of groups.
 - (a) Dihedral groups.
 - (b) Symmetric groups.
 - (c) Alternating groups.
- 2. (4 points) State Cayley's Theorem.
- 3. (4 points) Using the following multiplication table for S_3 , find a group of permutations that Cayley's Theorem guarantees exists.



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