

Math 3140 — Fall 2012

Handout #1

The multiplication table of D_3 : α and β are counterclockwise rotations by 120° and 240° , respectively; γ_i is the reflection through the line through the point labelled i (the points are labelled in counterclockwise order).

e	α	β	γ_1	γ_2	γ_3
α	β	e	γ_3	γ_1	γ_2
β	e	α	γ_2	γ_3	γ_1
γ_1	γ_2	γ_3	e	α	β
γ_2	γ_3	γ_1	β	e	α
γ_3	γ_1	γ_2	α	β	e

Describe all rigid transformations that are symmetries of the figure below:



Source: <http://en.wikipedia.org/wiki/Tessellation>.