

Use elements of S_4 . Cannot contain one-cycles.
only 4-cycles and 2-2 cycles left.

$$(12)(34), (13)(24), (14)(23), e$$

$$\Rightarrow C_2 \times C_2$$

$$(1234), (1234)^2, (1234)^3, e$$

$$\Rightarrow C_4$$