MA111 – Homework #5 Short Solutions

Chapter 11

36. (a) Reflection with axis going through C and the midpoint of AB; no rotations except for (multiples of) $360°$.

   (b) Reflections (three of them) with axis going through a vertex and the midpoint of the opposite side; rotations of $120°$, $240°$, (and $360°$) with rotocenter the center of the triangle.

   (c) No rotations except for (multiples of) $360°$.

38. (a) Reflections (five of them) with axis going through pairs of opposite vertices; rotations of $72°$, $144°$, $216°$, $288°$, (and $360°$) with rotocenter the center of the star.

   (b) No reflections; rotations of $72°$, $144°$, $216°$, $288°$, (and $360°$) with rotocenter the center of the shape.

40. (a) D_1.

   (b) D_3.

   (c) Z_1.

42. (a) D_5.

   (b) Z_5.

43. (a) D_1.

   (b) D_1.

   (c) Z_1.

   (d) Z_2.

   (e) D_2.

   (f) Z_2.

45. (a) J, for example.

   (b) T, for example.

   (c) Z, for example.

   (d) O, for example.