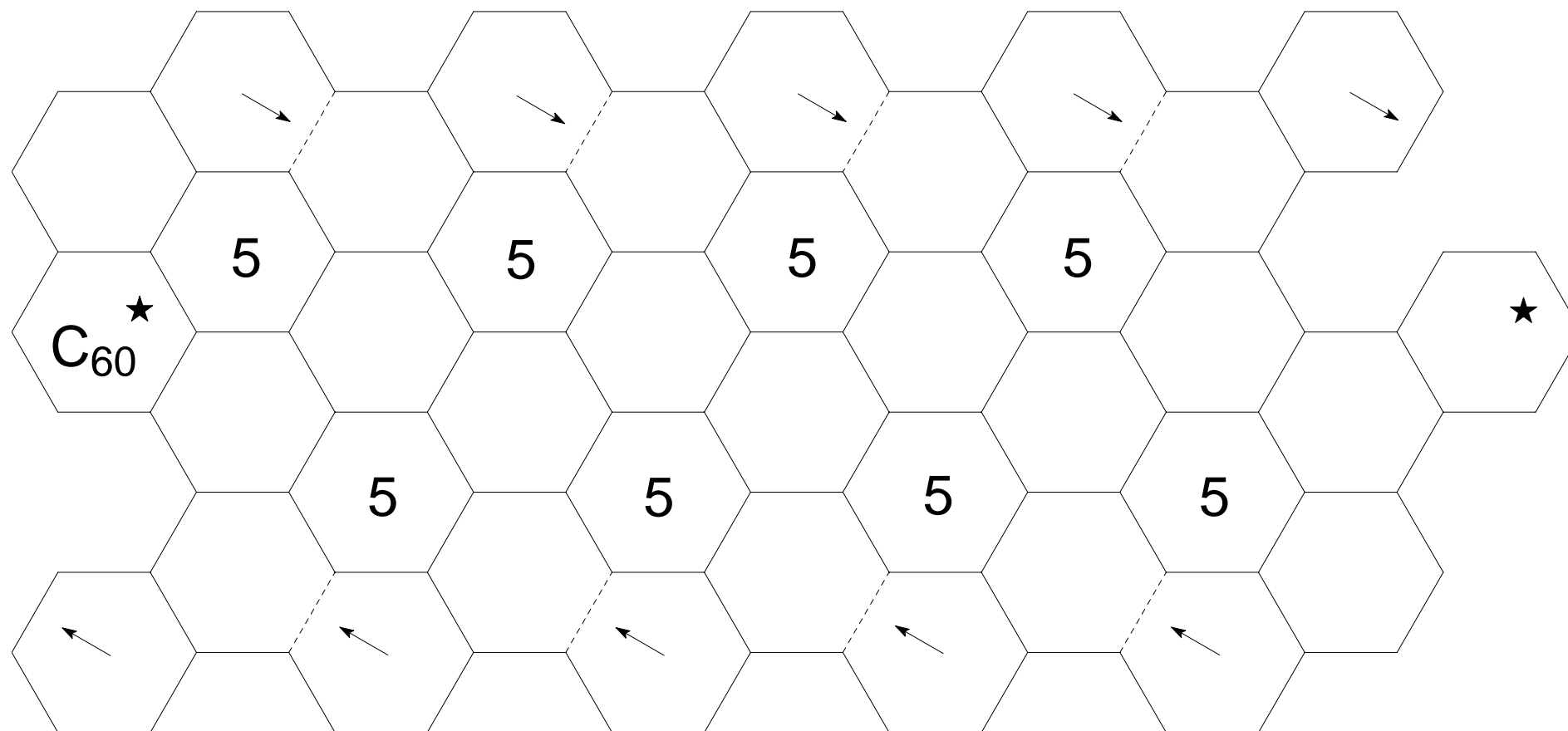


FULLERENES

The 1996 Nobel Prize for Chemistry was awarded to Robert Curl, Harold Kroto, and Richard Smalley for their discovery of a new form of carbon — fullerenes. The first fullerene discovered was Buckminster fullerene, C_{60} , which resembles a soccer ball. Many fullerenes exist, from C_{20} to long chain nanotubes. The patterns on these pages produce C_{60} , C_{70} , C_{80} , and C_{90} to illustrate the bonding and arrangement of pentagons and hexagons in fullerenes.



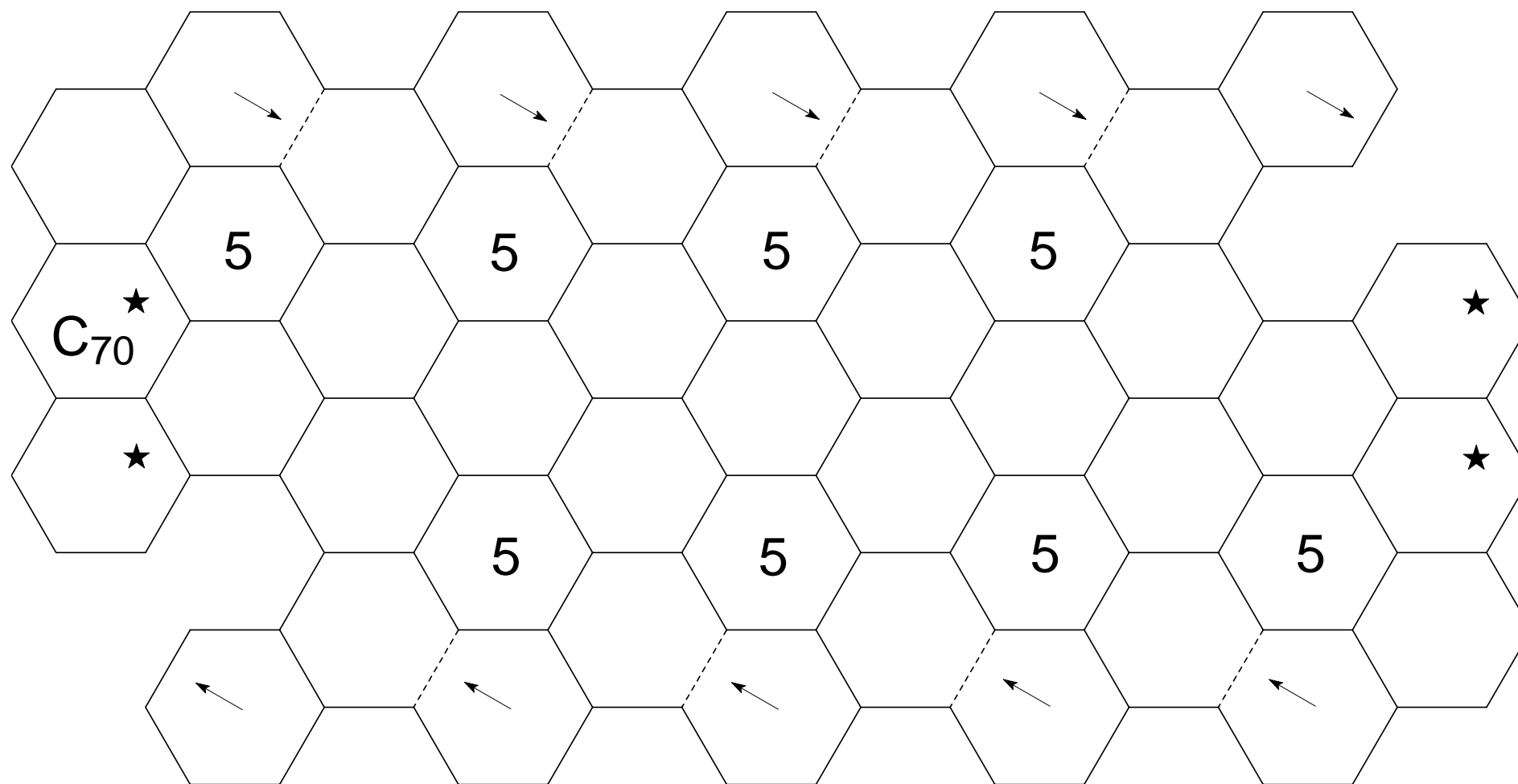
Instructions

- ① Photocopy this page onto card stock or glue a piece of construction paper to the back.
- ② Cut around the outside lines.
- ③ Cut along the dotted lines.
- ④ Cut out the hexagons with '5' on them.
- ⑤ Slightly fold all the joining lines (if possible).
- ⑥ Overlap the ★ hexagons and glue.
- ⑦ Overlap the → hexagons with their neighbor and glue.

Adapted from: Beaton, J.M. *Journal of Chemical Education*, **1995**, 72, 863.

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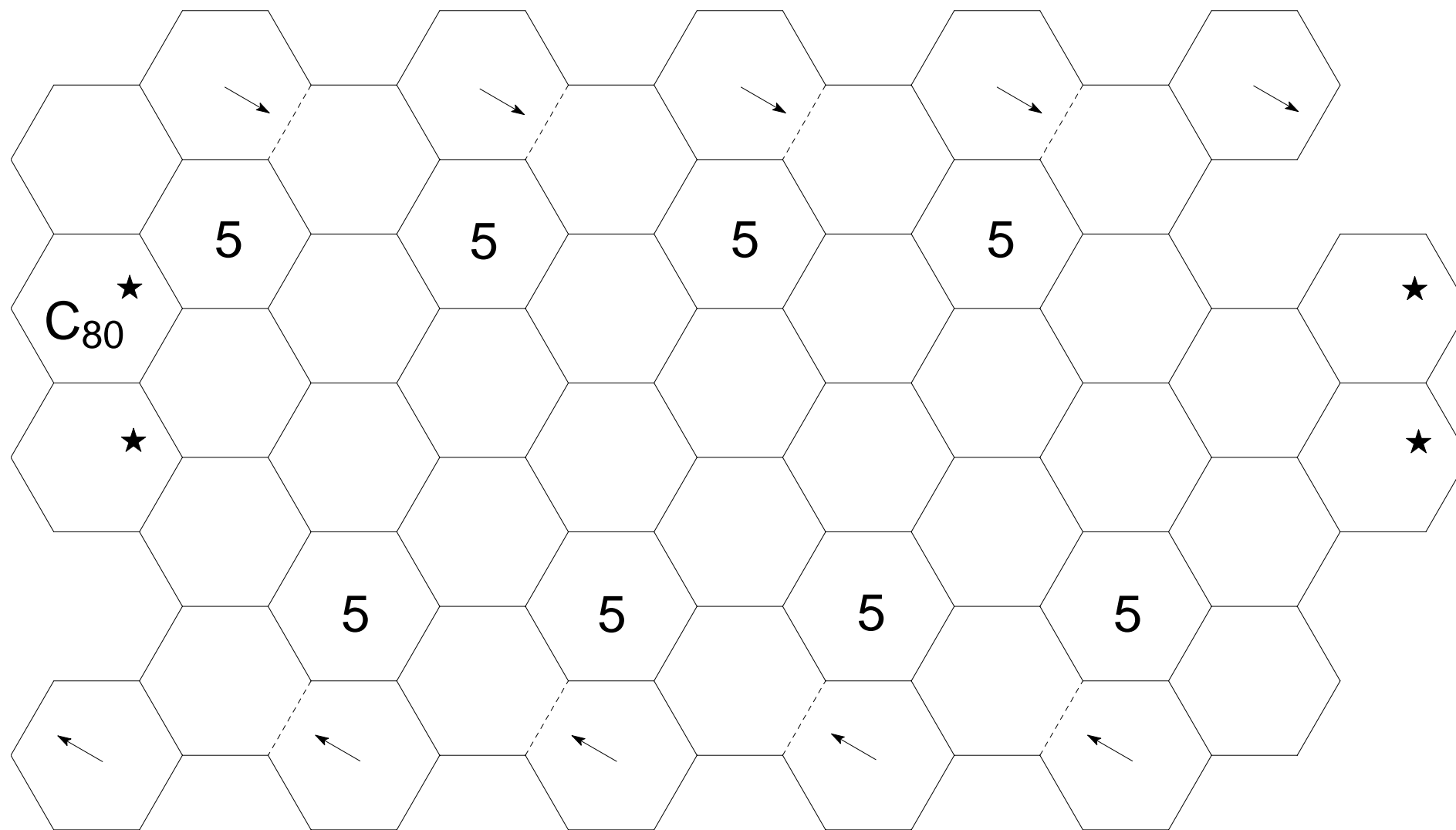
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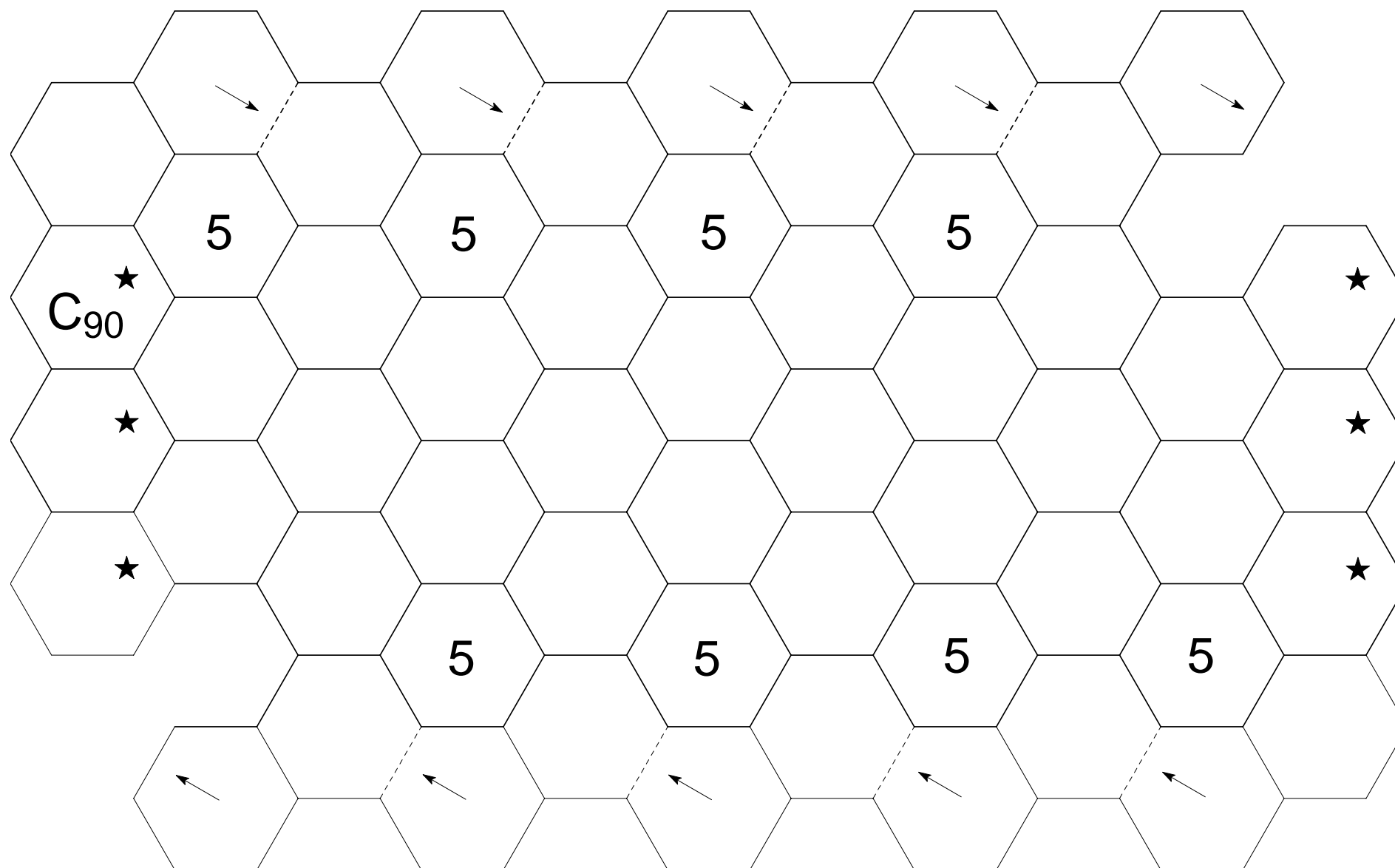
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