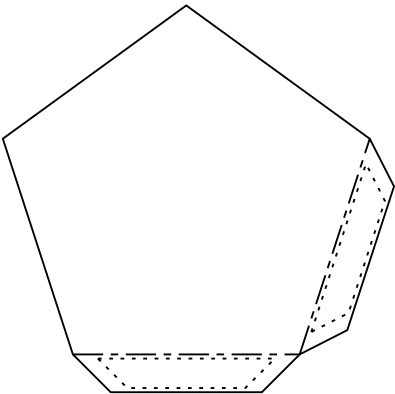


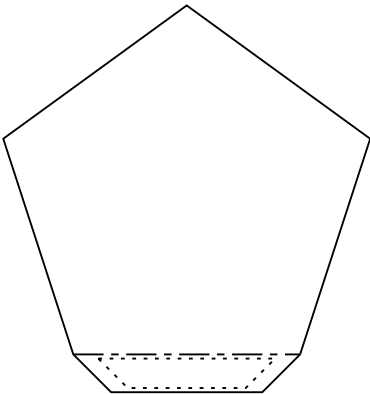
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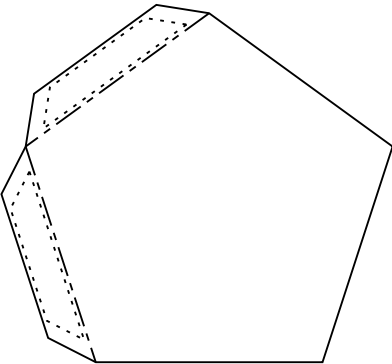
F06_10T_08T_07R_27R_11R | cut 1
51.75 x 51.17 mm



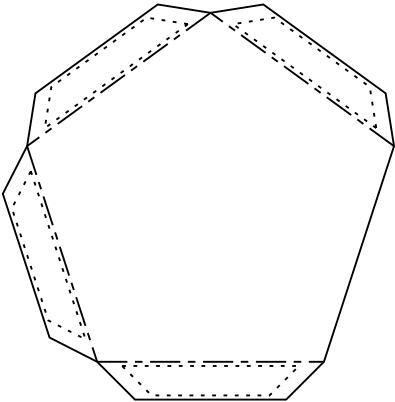
F10_19T_14R_13R_25R_20R | cut 1
48.54 x 51.17 mm



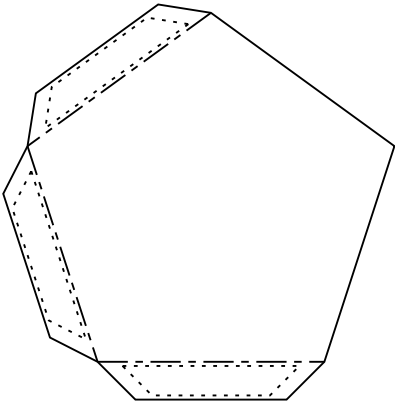
F08_29R_10R_12R_22T_23T | cut 1
51.75 x 47.27 mm



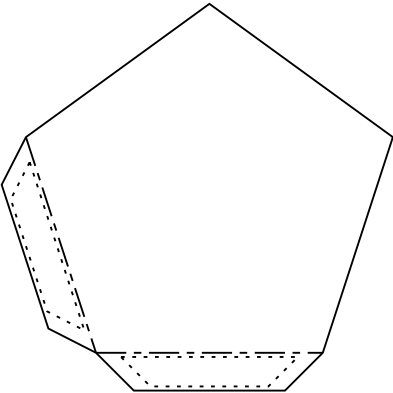
F04_11T_06R_05T_28T_12T | cut 1
51.75 x 52.27 mm



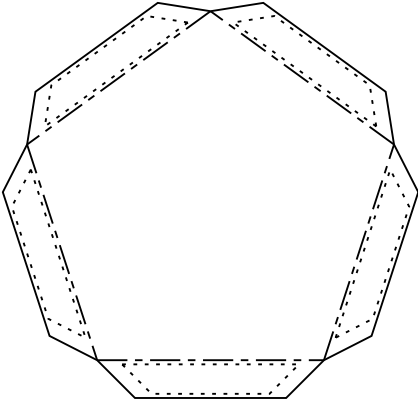
F07_20T_09R_08R_29T_21T | cut 1
51.75 x 52.27 mm



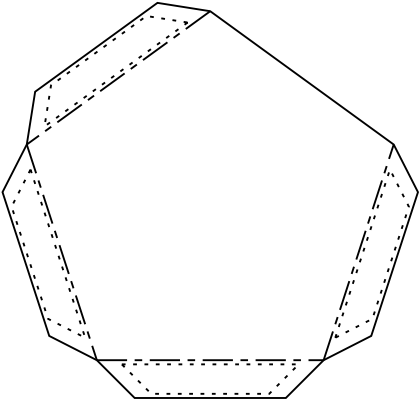
F05_16T_05R_04R_26R_17T | cut 1
51.75 x 51.17 mm



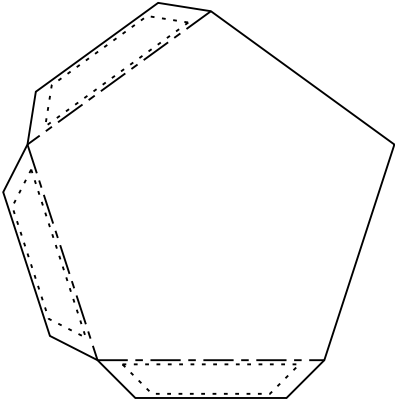
F01_27T_03T_02T_04T_06T | cut 1
54.96 x 52.27 mm



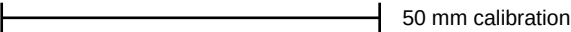
F02_25T_01T_03R_07T_09T | cut 1
54.96 x 52.27 mm



F03_26T_02R_01R_13T_15T | cut 1
51.75 x 52.27 mm



Solid: cut | Dashed: valley | Dash-dot: mountain | Dotted: glue

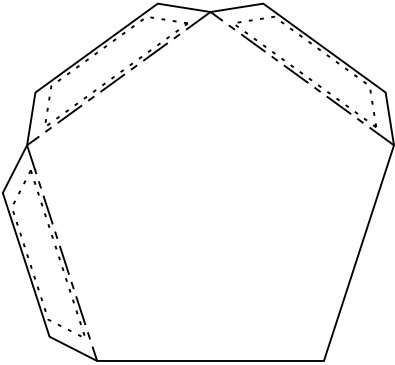


Print at 100% / Actual size. Do not fit to page. Original paper craft template.

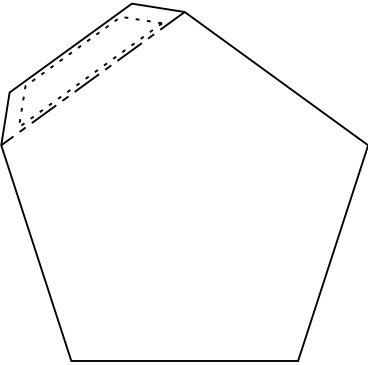
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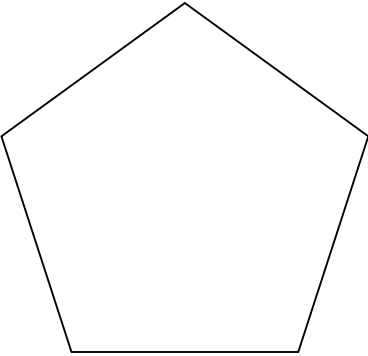
F09_17R_15R_14T_30T_18T | cut 1
51.75 x 47.27 mm



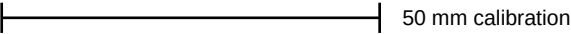
F11_28R_16R_18R_24T_22R | cut 1
48.54 x 47.27 mm



F12_30R_19R_21R_23R_24R | cut 1
48.54 x 46.17 mm



Solid: cut | Dashed: valley | Dash-dot: mountain | Dotted: glue



Print at 100% / Actual size. Do not fit to page. Original paper craft template.

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Finished size: 78.54 x 78.54 x 78.54 mm; edge 30 mm

Materials: 160-180 gsm paper; Scissors or craft knife; Ruler and blunt scoring tool; PVA glue; Pencil; Low-tack tape; Blunt narrow backing tool

Original analytic regular dodecahedron: 12 regular pentagons, 30 edges, 20 vertices.

Seam code key is printed in each part ID: five entries counterclockwise from the bottom horizontal edge; T = tab, R = receiver. Transfer this key to the edges before assembly.

Digital source checks: opposite paired edge directions, three faces per vertex, Euler characteristic 2, regular-shell volume, constant dihedral, and nonoverlapping flat panels/tabs.

Zero-thickness geometry: glue tabs intentionally coincide with the reverse of receiving faces. Paper/glue thickness and springback are not simulated. No arbitrary stretching.

Physical printing, cutting, glue access and assembly verification pending.

F01: edge 1 = 27T to F06, edge 2 = 03T to F02, edge 3 = 02T to F03, edge 4 = 04T to F05, edge 5 = 06T to F04

F02: edge 1 = 25T to F10, edge 2 = 01T to F03, edge 3 = 03R to F01, edge 4 = 07T to F06, edge 5 = 09T to F07

F03: edge 1 = 26T to F05, edge 2 = 02R to F01, edge 3 = 01R to F02, edge 4 = 13T to F10, edge 5 = 15T to F09

F04: edge 1 = 11T to F06, edge 2 = 06R to F01, edge 3 = 05T to F05, edge 4 = 28T to F11, edge 5 = 12T to F08

F05: edge 1 = 16T to F11, edge 2 = 05R to F04, edge 3 = 04R to F01, edge 4 = 26R to F03, edge 5 = 17T to F09

F06: edge 1 = 10T to F08, edge 2 = 08T to F07, edge 3 = 07R to F02, edge 4 = 27R to F01, edge 5 = 11R to F04

F07: edge 1 = 20T to F10, edge 2 = 09R to F02, edge 3 = 08R to F06, edge 4 = 29T to F08, edge 5 = 21T to F12

F08: edge 1 = 29R to F07, edge 2 = 10R to F06, edge 3 = 12R to F04, edge 4 = 22T to F11, edge 5 = 23T to F12

F09: edge 1 = 17R to F05, edge 2 = 15R to F03, edge 3 = 14T to F10, edge 4 = 30T to F12, edge 5 = 18T to F11

F10: edge 1 = 19T to F12, edge 2 = 14R to F09, edge 3 = 13R to F03, edge 4 = 25R to F02, edge 5 = 20R to F07

F11: edge 1 = 28R to F04, edge 2 = 16R to F05, edge 3 = 18R to F09, edge 4 = 24T to F12, edge 5 = 22R to F08

F12: edge 1 = 30R to F09, edge 2 = 19R to F10, edge 3 = 21R to F07, edge 4 = 23R to F08, edge 5 = 24R to F11

Part inventory (cut each instance once):

F01_27T_03T_02T_04T_06T: Pentagon F01; edge codes counterclockwise from bottom

F02_25T_01T_03R_07T_09T: Pentagon F02; edge codes counterclockwise from bottom

F03_26T_02R_01R_13T_15T: Pentagon F03; edge codes counterclockwise from bottom

F04_11T_06R_05T_28T_12T: Pentagon F04; edge codes counterclockwise from bottom

F05_16T_05R_04R_26R_17T: Pentagon F05; edge codes counterclockwise from bottom

F06_10T_08T_07R_27R_11R: Pentagon F06; edge codes counterclockwise from bottom

F07_20T_09R_08R_29T_21T: Pentagon F07; edge codes counterclockwise from bottom

F08_29R_10R_12R_22T_23T: Pentagon F08; edge codes counterclockwise from bottom

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F09_17R_15R_14T_30T_18T: Pentagon F09; edge codes counterclockwise from bottom

F10_19T_14R_13R_25R_20R: Pentagon F10; edge codes counterclockwise from bottom

F11_28R_16R_18R_24T_22R: Pentagon F11; edge codes counterclockwise from bottom

F12_30R_19R_21R_23R_24R: Pentagon F12; edge codes counterclockwise from bottom

1. Cut and identify all seams [F01_27T_03T_02T_04T_06T, F02_25T_01T_03R_07T_09T, F03_26T_02R_01R_13T_15T, F04_11T_06R_05T_28T_12T, F05_16T_05R_04R_26R_17T, F06_10T_08T_07R_27R_11R, F07_20T_09R_08R_29T_21T, F08_29R_10R_12R_22T_23T, F09_17R_15R_14T_30T_18T, F10_19T_14R_13R_25R_20R, F11_28R_16R_18R_24T_22R, F12_30R_19R_21R_23R_24R]: Print at 100%; check the 50 mm ruler and a 30 mm pentagon edge. Cut 12 panels including every tab. Each printed ID lists five seam codes: start with the horizontal bottom edge, then go counterclockwise on the printed side. T means integral tab, R means receiving edge. Transfer the codes lightly in pencil beside the corresponding edges before separating pieces from their labels. Match equal numbers only, T to R. Keep the printed side outside.

2. Score the measured tab folds [F01_27T_03T_02T_04T_06T, F02_25T_01T_03R_07T_09T, F03_26T_02R_01R_13T_15T, F04_11T_06R_05T_28T_12T, F05_16T_05R_04R_26R_17T, F06_10T_08T_07R_27R_11R, F07_20T_09R_08R_29T_21T, F08_29R_10R_12R_22T_23T, F09_17R_15R_14T_30T_18T, F10_19T_14R_13R_25R_20R, F11_28R_16R_18R_24T_22R, F12_30R_19R_21R_23R_24R]: Score each 30 mm tab base, not the tab perimeter. Mountain-fold all tabs away from the printed outside by 63.43495 degrees from flat; the interior face-to-face angle is 116.56505 degrees. Tabs are 5 mm deep with 5 mm taper at both ends. Main pentagons remain completely flat; never bend, stretch, or trim a face to force a fit.

3. Place F01 [F01_27T_03T_02T_04T_06T]: Start with this flat pentagon as the first panel. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

4. Place F02 [F02_25T_01T_03R_07T_09T]: Join seams 03 to F01. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

5. Place F03 [F03_26T_02R_01R_13T_15T]: Join seams 02 to F01, 01 to F02. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

6. Place F04 [F04_11T_06R_05T_28T_12T]: Join seams 06 to F01. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

7. Place F05 [F05_16T_05R_04R_26R_17T]: Join seams 05 to F04, 04 to F01, 26 to F03. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

8. Place F06 [F06_10T_08T_07R_27R_11R]: Join seams 07 to F02, 27 to F01, 11 to F04. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

9. Place F07 [F07_20T_09R_08R_29T_21T]: Join seams 09 to F02, 08 to F06. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

10. Place F08 [F08_29R_10R_12R_22T_23T]: Join seams 29 to F07, 10 to F06, 12 to F04. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through

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the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

11. Place F09 [F09_17R_15R_14T_30T_18T]: Join seams 17 to F05, 15 to F03. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

12. Place F10 [F10_19T_14R_13R_25R_20R]: Join seams 14 to F09, 13 to F03, 25 to F02, 20 to F07. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

13. Place F11 [F11_28R_16R_18R_24T_22R]: Join seams 28 to F04, 16 to F05, 18 to F09, 22 to F08. Apply a thin film of PVA to the tab outside surface and tuck it under the matching receiving edge; align the 30 mm endpoints with no face overlap. Pinch from both sides through the open shell until set. Keep every seam to an unplaced panel dry. Leave F12 off for interior access; let each joint hold before adding the next panel.

14. Check the open shell and final cap [F01_27T_03T_02T_04T_06T, F02_25T_01T_03R_07T_09T, F03_26T_02R_01R_13T_15T, F04_11T_06R_05T_28T_12T, F05_16T_05R_04R_26R_17T, F06_10T_08T_07R_27R_11R, F07_20T_09R_08R_29T_21T, F08_29R_10R_12R_22T_23T, F09_17R_15R_14T_30T_18T, F10_19T_14R_13R_25R_20R, F11_28R_16R_18R_24T_22R, F12_30R_19R_21R_23R_24R]: Through the F12 opening, press and inspect all 25 completed seams; allow them to dry fully. Dry-fit the tab-free F12 onto its five matching inward-folded tabs. All five 30 mm edges must meet without gaps, stretching, or buckling. The opening is the only remaining access; do not glue the cap yet.

15. Close F12 in accessible stages [F12_30R_19R_21R_23R_24R]: Glue two adjacent receiving tabs first, seat F12 and hold the other three edges slightly open. Use a blunt narrow tool through the unglued gap to back the first joints while pressing outside. After they set, apply glue to two more tabs with the tool, keeping the last seam open for backing access. Withdraw the tool, apply glue sparingly to the last tab, and close it. Bridge the final seam with low-tack tape while it dries; support the cured shell without crushing it. Remove tape only after fully dry. No internal tool is left inside.