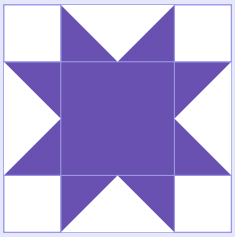
FREE GUIDE

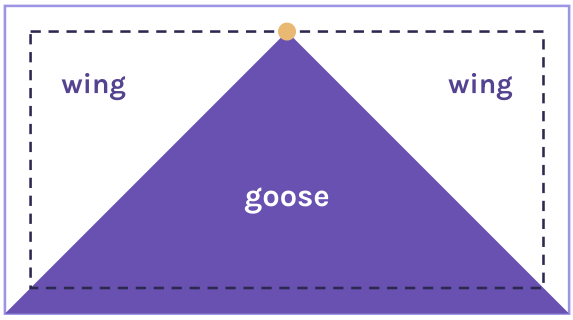
Flying Geese Guide

Flying geese four at a time with no waste, or one at a time with stitch and flip: what size to cut, how each method goes together, how to trim the point, and the geese a Sawtooth Star needs.



What a flying goose is

A flying geese unit is a rectangle twice as wide as it is tall: one large triangle, the goose, with a small triangle on each side, the wings. It makes the points of a Sawtooth Star and runs in rows along borders.



Width = 2 x height, always. Patterns name a goose by its finished size, height first: "2 x 4".
Unfinished (trim) size: the outside edge, finished + 1/2 in each way.
Finished size: the dashed rectangle, what shows in the quilt.
The point (gold) sits 1/4 in below the top edge, so the next seam lands right on it.

Pick a method

Method	Start with	Waste	Prints	Good for
Four at a time (no waste)	1 large + 4 small squares make 4	Nothing trimmed away when cut exact	Turns the goose fabric four ways	Many geese from one fabric pair
One at a time (stitch and flip)	1 rectangle + 2 squares make 1	Two corners cut off per goose	Keeps a one-way print upright	Directional prints, scrappy geese, a few at a time

Each method has an exact size, sewn with a precise 1/4 in seam and no trimming, and an oversized one you trim down. Oversized costs a little fabric and gives a point that sits exactly 1/4 in from the edge, so this guide leads with it.

You will need

Rotary cutter, mat and ruler; a square ruler with a 45-degree line and a center line; a fabric pencil or marker; pins.

CUTTING CHART

What size to cut

Finished	Trim to	No waste, exact	No waste, oversized	Stitch and flip, exact	Stitch and flip, oversized
1 x 2	1 1/2 x 2 1/2	3 1/4 + 1 7/8	**3 1/2 + 2 1/8**	1 1/2 x 2 1/2 + 1 1/2	**1 3/4 x 2 3/4 + 1 3/4**
1 1/2 x 3	2 x 3 1/2	4 1/4 + 2 3/8	**4 1/2 + 2 5/8**	2 x 3 1/2 + 2	**2 1/4 x 3 3/4 + 2 1/4**
2 x 4	2 1/2 x 4 1/2	5 1/4 + 2 7/8	**5 1/2 + 3 1/8**	2 1/2 x 4 1/2 + 2 1/2	**2 3/4 x 4 3/4 + 2 3/4**
2 1/2 x 5	3 x 5 1/2	6 1/4 + 3 3/8	**6 1/2 + 3 5/8**	3 x 5 1/2 + 3	**3 1/4 x 5 3/4 + 3 1/4**
3 x 6	3 1/2 x 6 1/2	7 1/4 + 3 7/8	**7 1/2 + 4 1/8**	3 1/2 x 6 1/2 + 3 1/2	**3 3/4 x 6 3/4 + 3 3/4**
3 1/2 x 7	4 x 7 1/2	8 1/4 + 4 3/8	**8 1/2 + 4 5/8**	4 x 7 1/2 + 4	**4 1/4 x 7 3/4 + 4 1/4**
4 x 8	4 1/2 x 8 1/2	9 1/4 + 4 7/8	**9 1/2 + 5 1/8**	4 1/2 x 8 1/2 + 4 1/2	**4 3/4 x 8 3/4 + 4 3/4**
5 x 10	5 1/2 x 10 1/2	11 1/4 + 5 7/8	**11 1/2 + 6 1/8**	5 1/2 x 10 1/2 + 5 1/2	**5 3/4 x 10 3/4 + 5 3/4**
6 x 12	6 1/2 x 12 1/2	13 1/4 + 6 7/8	**13 1/2 + 7 1/8**	6 1/2 x 12 1/2 + 6 1/2	**6 3/4 x 12 3/4 + 6 3/4**

All sizes in inches, height x width. **No waste:** one large body square + four small wing squares make four geese. **Stitch and flip:** one body rectangle + two wing squares make one goose. Bold sizes are oversized: trim every goose to the "Trim to" size.

The rules behind the chart

- **Trim to:** finished + 1/2 in each way.
- **No waste, exact:** body = finished width + 1 1/4 in; wings = finished height + 7/8 in.
- **No waste, oversized:** body = finished width + 1 1/2 in; wings = finished height + 1 1/8 in.
- **Stitch and flip, exact:** body = the trim size; wings = finished height + 1/2 in.
- **Stitch and flip, oversized:** every piece 3/4 in over finished.

How many to cut

No waste: sets = geese needed / 4, rounded up. Each set is 1 body square and 4 wing squares. 18 geese = 5 sets, with 2 spare geese.

Stitch and flip: 1 rectangle and 2 wing squares per goose.

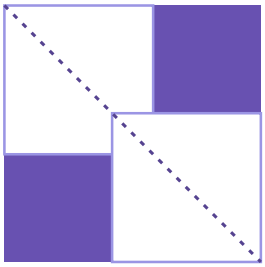
Each fabric pair is its own set: a red goose with cream wings and a blue goose with cream wings can't share a body square.

> Sew one test goose before cutting a whole quilt's worth. A seam a thread too wide is enough to cut off the point.

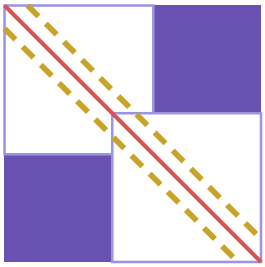
Any size or count: flying geese calculator.

METHOD 1

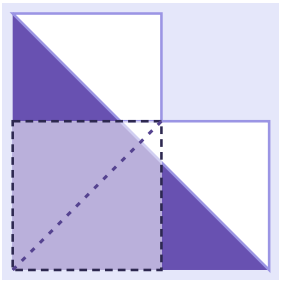
Four at a time, no waste



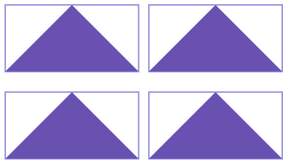
1. Two wing squares on opposite corners; one line across both.



2. Sew 1/4 in each side of the line. Cut on it (red); press wings open.



3. Each half: a wing in the last body corner, line toward the gap.



4. Sew both sides, cut, press: four geese. Trim each one.

1. Draw a diagonal line from corner to corner on the wrong side of each wing square.
2. Lay two wing squares right side down on opposite corners of the body square, so the drawn lines form one continuous diagonal. The small squares overlap in the middle.
3. Sew 1/4 in from the line on both sides, then cut on the line. Press the wing triangles open, away from the body fabric.
4. On each half, lay one more wing square right side down in the remaining body corner, its drawn line running from that corner to the gap between the two wings.
5. Sew 1/4 in from the line on both sides, cut on the line, and press the new wings open. You now have four geese.
6. Trim each goose to 2 1/2 x 4 1/2 in: line up the ruler's center line with the point, lay its 45-degree lines along both wing seams, and keep 1/4 in of fabric above the point.

Worked example: sixteen 2 x 4 in geese

Sets	16 / 4 = **4**
Oversized	4 body squares 5 1/2 in; 16 wing squares 3 1/8 in; trim to 2 1/2 x 4 1/2 in
Exact	4 body squares 5 1/4 in; 16 wing squares 2 7/8 in; no trimming

Tips

- The goose fabric is the large square; the wing fabric is the small ones.
- The four geese come from the four edges of the body square, so a one-way print points four ways. Use stitch and flip for those.
- Press the wings away from the goose before adding the next wing.

METHOD 2

One at a time, stitch and flip



1. Wing square on the left end. Sew on the line.

2. Trim 1/4 in past the stitching; press the wing open.

3. Second wing on the right end, the line meeting the first.

4. Trim and press: one goose.

1. Draw a diagonal line from corner to corner on the wrong side of each wing square.
2. Lay a wing square right side down on the left end of a body rectangle, edges matched, with the drawn line running from the bottom-left corner up to the top edge.
3. Sew on the line. Trim 1/4 in beyond the stitching, removing the top-left corner, and press the wing open over the corner.
4. Lay a second wing square on the right end, its line running from the bottom-right corner up to the top edge so it crosses the first wing near the top. Sew on the line, trim 1/4 in beyond it, and press the wing open.
5. Trim the goose to 2 1/2 x 4 1/2 in: line up the ruler's center line with the point, lay its 45-degree lines along both wing seams, and keep 1/4 in of fabric above the point.

Worked example: twelve 2 x 4 in geese

Exact	12 rectangles 2 1/2 x 4 1/2 in; 24 wing squares 2 1/2 in
Oversized	12 rectangles 2 3/4 x 4 3/4 in; 24 wing squares 2 3/4 in; trim to 2 1/2 x 4 1/2 in

Check that each pressed wing reaches the corner of the rectangle before you trim the layers behind it.

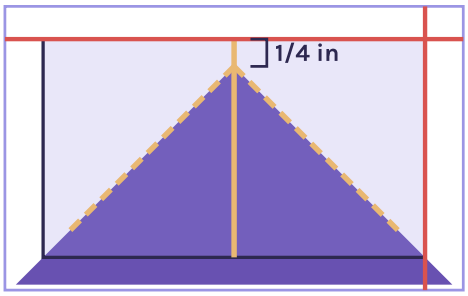
Bonus triangles

Before trimming a corner, sew a second line 1/2 in further toward the corner and cut between the two seams. The piece you would have thrown away is now a small half-square triangle. More in Bonus HSTs.

Directional prints

Every goose comes from its own rectangle, so a one-way print stays upright. Cut the rectangles with the print running the way the geese will fly.

Trim, press and fix



- Lay the ruler (shaded) on the goose with its center line (gold) through the point.
- Line up its 45-degree lines (gold dashes) with both wing seams.
- Keep 1/4 in of fabric above the point.
- Cut the top and right edges (red). Turn the goose 180 degrees, line the cut edges up with the trim size, and cut the other two sides.

The point is what you trim to, not the raw edges. If a wing seam is slightly off, the 45-degree lines show it before you cut. More in Perfect points.

Which way to press

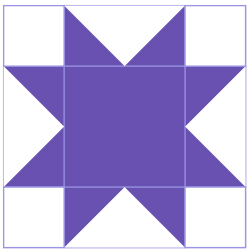
Press	When	Watch for
Toward the wings	The usual choice. The goose lies flat and the point is easy to see when you join the next seam.	Sew the next seam with the goose on top, so you can see the point.
Open	Small geese, or where many seams meet.	Takes longer; press from the back first.

Fixes

Problem	Likely cause	Fix
Point cut off in the block	Less than 1/4 in above the point, or a wide joining seam	Trim with 1/4 in above the point; sew the next seam with the point just inside it.
Point drifts off center	Trimmed from the raw edges, not the point	Keep the ruler's center line on the point in both passes.
Goose too small to trim	Seams wider than 1/4 in, or exact cuts	Check your seam on a test goose; cut the oversized size.
Wing doesn't reach the corner	Stitch-and-flip line sewn outside the drawn line	Sew a thread inside the line, toward the corner.
Geese point every which way in a one-way print	No-waste method turns the fabric	Use stitch and flip for directional prints.

USING THEM

Sawtooth Stars and your plan



A Sawtooth Star is four geese around a center square, with a plain square in each corner. The geese are a quarter of the block tall and half of it wide, so **one no-waste set makes one star**. The geese bodies are the background; the wings are the star points.

Star (finished)	Geese	One set: body + wings	Corner squares	Center square
4 in	1 x 2 in	3 1/2 + 4 at 2 1/8	4 at 1 1/2	1 at 2 1/2
6 in	1 1/2 x 3 in	4 1/2 + 4 at 2 5/8	4 at 2	1 at 3 1/2
8 in	2 x 4 in	5 1/2 + 4 at 3 1/8	4 at 2 1/2	1 at 4 1/2
10 in	2 1/2 x 5 in	6 1/2 + 4 at 3 5/8	4 at 3	1 at 5 1/2
12 in	3 x 6 in	7 1/2 + 4 at 4 1/8	4 at 3 1/2	1 at 6 1/2
16 in	4 x 8 in	9 1/2 + 4 at 5 1/8	4 at 4 1/2	1 at 8 1/2

Cut sizes in inches; geese are oversized (trim to finished + 1/2 in). More in Sawtooth Star color placement.

Geese in a border

A row of geese is as long as the number of geese x the finished width. For a 60 in border of 2 x 4 in geese: 60 / 4 = 15 geese (4 no-waste sets, 1 spare). If the quilt isn't a multiple of the goose width, add a plain spacer at each end. More in Pieced border math, or try the free Flying Geese Row pattern.

Your geese

Finished size	_____ x _____ in	Trim to	_____ x _____ in
Fabric pair 1	_____ geese	Method, sets	_____
Fabric pair 2	_____ geese	Method, sets	_____
Body cuts	_____ in	Wing squares	_____ in

How we made this guide. QuiltLab wrote and drew it with AI tools from published flying geese methods, summarized in the articles linked above, which cite their sources. Cut sizes come from the QuiltLab flying geese calculator, whose sizes are checked against a geometry simulation of the sewing and cutting. The pictures are diagrams, not photos, and no one has sewn a test goose from this guide yet. Spot a mistake? Tell us at quiltlab.co/help.