



Math for Quilters

Mattress Sizes

Twin: 39 x 75

Double/Full: 54 x 75

Queen: 60 x 80

King: 78 x 80

Consider . . .

Do you want your quilt to hang off the bed on the bottom and each side?

Do you want your quilt to have extra length at the top to tuck under pillows?

How thick is your mattress?

How much drop do you want? To cover the mattress? All the way to the floor?

Calculate Borders and Binding

Determine the perimeter of the finished quilt top

Example: For a 70 x 80 quilt add $70 + 70 + 80 + 80 = 300$

You need 300 linear inches of fabric

Divide 300 by 40 (WOF after selvedges are trimmed off) = 7.5

You need 8 strips of fabric

Multiply 8 by the unfinished width of your border

Example: $8 \times 4.5 = 36$

You need one yard of fabric for this border

$$.125 = 1/8 \text{ yard} = 4.5''$$

$$.25 = 1/4 \text{ yard} = 9''$$

$$.33 = 1/3 \text{ yard} = 12''$$

$$.375 = 3/8 \text{ yard} = 13.5''$$

$$.5 = 1/2 \text{ yard} = 18''$$

$$.625 = 5/8 \text{ yard} = 22.5''$$

$$.66 = 2/3 \text{ yard} = 24''$$

$$.75 = 3/4 \text{ yard} = 27''$$

$$.875 = 7/8 \text{ yard} = 31.5''$$

$$1.0 = 1 \text{ yard} = 36''$$

This formula works for borders and binding. If you are calculating fabrics for multiple borders be sure to add the extra measurements to the size of your quilt top as it grows to determine how much fabric you need for each subsequent border and binding.

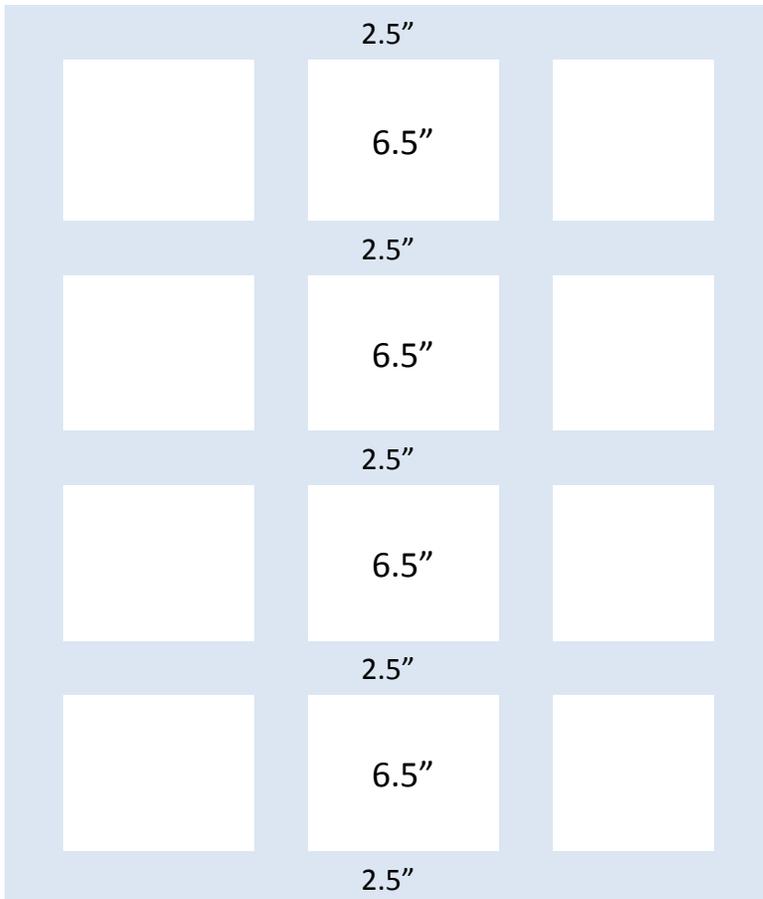
Example: 70 x 80 quilt. Add a 4 inch border all the way around. Quilt is now 78 x 88. Do the math based on this new size for subsequent borders and binding.

Practice: Use the formula to determine how much binding you need for a 90" x 100" quilt.

Calculate Sashing

It helps to make a sketch when calculating how much fabric you need for sashing. As with borders, you need to determine how many linear inches of fabric you need. Divide that number by 40 (WOF) to get the number of strips you need. Then multiple the number of strips by the unfinished width of your sashing. Divide by 36 to determine total yardage.

Baby Blanket: Blocks 6.5" unfinished; Sashing 2.5" unfinished



Across: 29.5"

Times 5 lengths = 147.5"

Divided by 40 = 3.7

4 strips needed for Across

Down: 38.5"

Times 4 lengths = 154"

Divided by 40 = 3.85

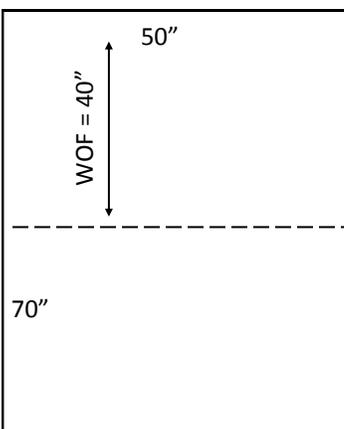
4 strips needed for Down

Round up to **9** to be on the safe side

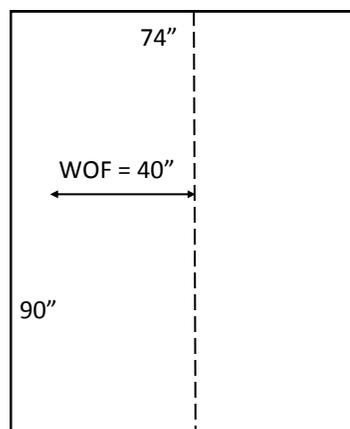
$9 \times 2.5 = 22.5$ inches

You need 1/2 yard for sashing

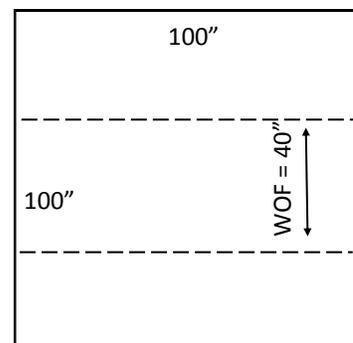
Calculate Backing



50" x 70"
 $50" \times 2$ pieces = 100 inches
 100 divided by 36 = 2.77 yards



74 x 90
 $90" \times 2$ pieces = 180 inches
 180 divided by 36 = 5 yards



100 x 100
 $100" \times 3$ pieces = 300 inches
 300 divided by 36 = 8.33 yards

Reminder: If you are sending your quilt to a longarm quilter add 5 inches all the way around for backing and batting (or as requested by your quilter).