

Roofing

Shingles are considered to average 4 inches in width and are generally laid 4 in., $4\frac{1}{2}$ in., 5 in., or $5\frac{1}{2}$ in. to the weather. Shingles are put up in bundles of 250 to the bundle. Roofing is usually estimated by the *square* of 100 sq. ft. It is found that, allowing for waste, four bundles of shingles, or 1000 shingles, laid 4 inches to the weather will cover a *square* or 100 sq. ft. When laid $4\frac{1}{2}$ inches to the weather 900 shingles are required to cover the same area.

The following table gives approximately the number of shingles required to cover a square of roofing with the distances laid to the weather.

<i>Inches to the weather.</i>	<i>Number to cover a square</i>
4	1000 or 4 bundles
$4\frac{1}{2}$	900 or $3\frac{3}{4}$ bundles
5	800 or $3\frac{1}{2}$ bundles
$5\frac{1}{2}$	700 or $2\frac{3}{4}$ bundles

EXERCISE

1. Find the number of shingles required to cover a rectangular surface 40 ft. by 20 ft., the shingles being laid 4 in. to the weather.

2. Find the number of shingles required to cover the two sides of the gable roof of a barn 60 ft. long, each slope being 25 feet wide. The shingles are laid 5 in. to the weather.

3. How many thousand shingles are required for a barn with a gable roof 50 ft. long, each slope being 20 ft. wide? The shingles are laid 4 in. to the weather.

4. It requires 18 bunches of shingles to cover a gable roof 25 ft. long. How wide is each slope, the shingles being laid $4\frac{1}{2}$ in. to the weather?