

# FLOORING CALCULATION REFERENCE

Standard area, waste, coverage, and cost formulas for estimating flooring material requirements.

## Floor Area Formula

**Room Area (sq ft)** = Length × Width

**Total Area (sq ft)** = Sum of all room areas - Sum of all obstructions

**1 square foot** = 12 inches × 12 inches

Values assume uniform rectangular measurements.

## Box & Cost Formulas

### BOX CALCULATION

**Boxes Needed** = CEILING(Order Quantity ÷ Coverage per Box)

Boxes are always rounded up to whole units.

### WASTE CALCULATION

**Waste Sq Ft** = Total Area × (Waste% ÷ 100)

**Order Quantity** = Total Area + Waste

Waste factor varies by layout pattern and room complexity.

### COST ESTIMATION

**Material Cost** = Order Quantity × Price per sq ft

**Labor Cost** = Total Area × Labor per sq ft

**Total Cost** = Material + Labor

Material cost is based on ordered square footage including waste.

Labor cost is typically based on actual installed area.

## Waste Factor Allowances (Typical)

By Pattern	
Straight lay	5-7%
Standard stagger	10%
Diagonal	12-15%
Herringbone	15-20%
Chevron	15-20%
By Room Complexity	
Rectangle	5-7%
Closet	10%
Angles	12-15%
Complex	15-20%
By Flooring Type	
Laminate / LVP	10%
Hardwood	10-15%
Engineered	10%
Tile	10-15%

## Coverage Per Box

### Typical Coverage Per Box

Laminate	20-24 sq ft	Vinyl Plank	20-30 sq ft
Hardwood	20-25 sq ft	Engineered	20-30 sq ft
Tile 12x12	8-10 sq ft	Tile 18x18	18-20 sq ft

## Quick Reference Formulas

Room Area = Length × Width

Total Area = Rooms - Obstructions

Waste Sq Ft = Area × Waste%

Order Quantity = Area + Waste

Boxes Needed = CEILING(Order ÷ Coverage)

Material Cost = Order × Price

Labor Cost = Area × Labor

## Example Calculation

### EXAMPLE : 12 × 15 ROOM

**Room Area:** 12 x 15 = 180 sq ft

**Waste(10%):** 180 X 0.10 = 18 sq ft

**Order Quantity:** 198 sq ft

**Coverage:** 22.09 sq ft per box

**Boxes Needed:** CEILING(198 ÷ 22.09) = 9 boxes

## Measurement Notes

- Measure length along longest wall
- Multiply length × width
- Break L-shaped rooms into rectangles
- Subtract permanent obstructions only
- Always verify coverage per box
- Round up to whole boxes
- Buy extra boxes from same lot