

BOARD FEET/SQUARE FEET FORMULAS

1. BOARD FEET - used for solid wood (Alder etc.)

A. If the length is in inches

$$\frac{\text{No of PCS} \times \text{T}'' \times \text{W}'' \times \text{L}''}{144}$$

B. If the length is Length in feet

$$\frac{\text{No of PCS} \times \text{T}'' \times \text{W}'' \times \text{L}'}{12}$$

2. SQUARE FEET - used for sheet material (Plywood etc.)
Don't include thickness

A. If the length is in inches

$$\frac{\text{No of PCS} \times \text{W}'' \times \text{L}''}{144}$$

B. If both the width and length are in feet

$$\text{W}' \times \text{L}' = \text{SQUARE FEET}$$

T = THICKNESS
W = WIDTH
L = LENGTH

Board Feet Example : How many board feet in a board 1" thick, 6" wide and 96" long. (1" x 6" x 96")

$$1" \times 6" \times 96" \text{ divided by } 144 = \text{BF}$$

$$576" \text{ divided by } 144 = 4 \text{ BF}$$

To find the cost of a board: Multiply the BF (or SQ FT) by the unit cost of the wood.

Example: Find the cost of a Alder board 2" thick, 8" wide and 120" long whose unit cost is \$1.35 per board foot.

Formula:
$$\frac{\text{PCS} \times \text{T}'' \times \text{W}'' \times \text{L}''}{144} = \text{BF}$$

Find Board Feet:
$$1 \times 2'' \times 8'' \times 120'' \text{ divided by } 144 = \text{BF}$$
$$1920'' \text{ divided by } 144 = 13.33333 \text{ or } 13.33 \text{ BF}$$

Find the cost:
$$13.33 \text{ BF} \times \$1.35 = \$16.6625 \text{ or } \$16.66$$

PRACTICE: Given the dimensions and the unit cost, figure the *BOARD FOOTAGE* and the *COST* in each of the following problems.

1. Dimensions: Alder 1" x 7" x 109"
1 piece
unit cost: \$1.35
BF= _____
Cost= _____
2. Dimensions: Walnut ½" x 5 ½" x 96"
3 Pieces
Unit Cost: \$5.00
BF= _____
Cost= _____
3. Dimensions: Oak Plywood ¾" x 18" x 36" BF = _____
2 pieces
Unit Cost: \$2.37
Cost = _____