

# AI-01584 4x8 Plywood Cutlist

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Tags	Problem
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## How many 4×8 plywood is needed for a 10pcs 574.6mm x 480mm drawer bottom

Let's calculate the number of 4×8 plywood sheets required for 10 drawer bottoms, each measuring 574.6mm x 480mm:

### 1. Calculate the area of one drawer bottom:

- Area = length × width
- Area = 574.6mm × 480mm = **275,808 mm<sup>2</sup>** (or **0.2758 m<sup>2</sup>**).

### 2. Calculate the area of a 4×8 plywood sheet:

- Plywood size = 1219.2mm × 2438.4mm
- Area = 1219.2mm × 2438.4mm = **2,973,568 mm<sup>2</sup>** (or **2.9736 m<sup>2</sup>**).

### 3. Determine how many drawer bottoms fit on one plywood sheet:

- Divide the plywood area by the area of one drawer bottom.
- $2,973,568 \text{ mm}^2 \div 275,808 \text{ mm}^2 =$  approximately **10.78** drawer bottoms per plywood sheet.

This means you can fit **10 drawer bottoms on one sheet of plywood** with a bit of leftover space.

### 4. How many sheets for 10 drawer bottoms?

Since you can fit 10 on one plywood sheet, you will need just **1 sheet of 4×8 plywood** for 10 drawer bottoms.

Would you like help with optimizing the layout to minimize waste?

## What is the best way to optimize the cut list

Optimizing the cut list for your 10 drawer bottoms (574.6mm x 480mm) involves minimizing waste and ensuring efficient use of the 4×8 plywood sheet (1219.2mm x 2438.4mm). Here's a step-by-step approach:

## 1. Determine the Orientation of Cuts:

- Consider whether to cut the drawer bottoms lengthwise or widthwise. Since the drawer dimensions are smaller than the plywood width and length, it's better to start by aligning the longer side of the drawer bottoms (574.6mm) along the longer side of the plywood sheet (2438.4mm).

## 2. Layout Planning:

- Arrange the pieces to maximize the use of the plywood while leaving minimal gaps. Here's an example:
  - Divide the plywood into rows of 574.6mm (length of the drawer bottom). This gives **4 rows**.
  - In each row, you can fit **5 pieces** of 480mm (width of the drawer bottom).
  - 4 rows × 5 pieces = **20 pieces** in total. Since you only need 10, you'll have unused space for other cuts.

## 3. Minimize Waste:

- Ensure the placement minimizes leftover strips or gaps between cuts.
- Place the cuts edge to edge where possible, without overcomplicating the layout.

## 4. Use Cutting Software or Tools:

- Programs like SketchUp or CutList Plus can help visually plan the cuts and automatically calculate the best layout.
- They also provide a preview of how the plywood will look after cutting, helping avoid errors.

## 5. Consider Saw Blade Allowance:

- Account for the width of the saw blade (kerf), typically 3-5mm. This might slightly affect the number of pieces that can fit on the plywood.

## **6. Validate the Design:**

- Before cutting, double-check measurements and placements to ensure efficiency and prevent mistakes.

If you'd like help creating a visual representation of the optimized cut layout, I could guide you with step-by-step instructions. Let me know!