6": 3x16, 1x14
8": 2x16
4": 2x12

$$$
74.25 + 21.72
58
24.90
$178.87

Home Depot:
2x6": 12ft, 16ft, 20ft, 14ft (18.63, 21.72, 24.75, 30.48)
2x8": 12ft, 16ft (21.82, 24)
2x4" 12ft (12.45)

Wood:

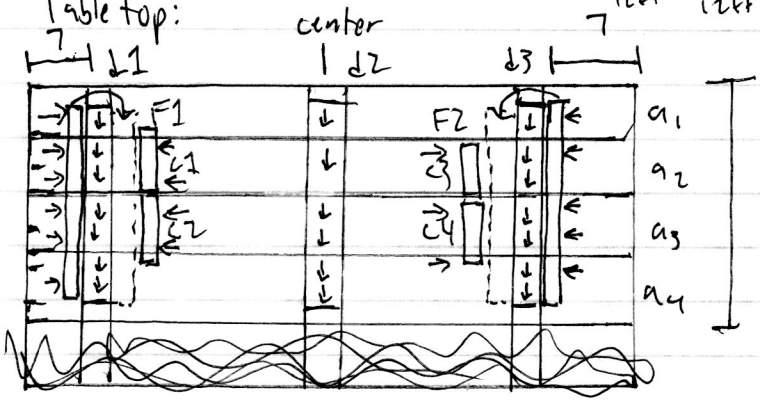
2x16 a) Tabletop Slats (4): 2 x 8 x 72 (+24) 288"/384" ✓
2x16 b) Bench Slats (4): 2 x 6 x 68 (+24) 272"/368" ✓ 4": 227.25 (+179.5)
1x14 c) Table Legs (4): 2 x 6 (8?) x 30 → 40.5 162" ✓ 6": 709.5 (-179.5)
1x12 d) Table Supports (3): 2 x 4 x 28 3/4 86.25 ✓ 8": 384 (+162) (-162)
1x16 e) Bench Supports (2): 2 x 6 (4?) x 61 ~~(+24)~~ 122 ✓
f). Upper Leg Braces (2): 2x6 (4) x 28 3/4 * 57.5 ✓ 4": 18.94 ft (33.9)
1x12 g). Angle Braces (2): 2x4 x 24 → 40.5 81 6": 59.125 ft (44.17) (30.67)
h). Bench Cleats (6): 2x4 x 10 60 8": 32 ft (45.5)

162 + 122 + 57.5 = 341.5/12 = 28.45
14ft 16 ft

60 + 81 + 86.25 = 227.25
12ft 12ft

162 in = 13.5 $5
174.5 in = 15

Tabletop:



4·(8 + 1/2) ~ 32

Upper Leg Braces (F):

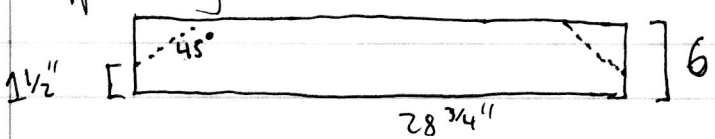
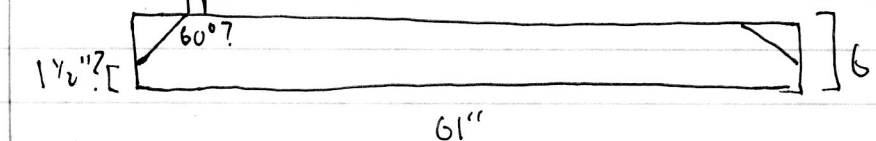


Table Legs (C):

sin 60 = x/40
x = 40 · sin 60
= 34.6

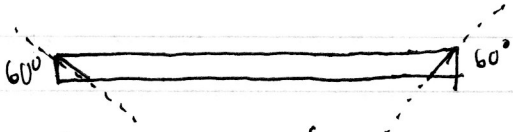
sin 60 = x/27.6
x = 27.6 · sin 60
x = 23.9

Bench Supports (E):

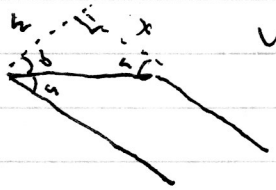


tan 30 = x/6
x = 6 tan 30
= 3.4 in

Angle Braces (2):



$\sqrt{(27\frac{1}{4})^2 + 34.25^2} = 20.748$



b = 49.2

tan θs = x/w

x = 1.5 · tan 49.2 = 1.737

$\sqrt{1.5^2 + 1.75^2} = 23$