

6. Verify your solution to Problem 3 with the AWC Span Calculator.

See attached!

actually, 2x8 will work in SS, No. 1, No. 2
So, obviously, so does 2x10 --

In fact, 2x10 spans out to 14-11 in
Grade No. 2 under these conditions.



**Span Options Calculator
for Wood Joists & Rafters**

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Species
Alaska Cedar
Alaska Hemlock
Alaska Spruce
Alaska Yellow Cedar
Aspen
Baldcypress
Beech-Birch-Hickory
Coast Sitka Spruce
Cottonwood
Douglas Fir-Larch
Douglas Fir-Larch (North)
Douglas Fir-South
Eastern Hemlock-Balsam Fir
Eastern Hemlock-Tamarack
Eastern Softwoods

Ctrl-Click to select multiple species

Required Horizontal Span	11 ft. 6 in.
Member Type	Floor Joist
Deflection Limit	L/480
Spacing (in)	16
Live Load (psf)	40
Dead Load (psf)	15
Exterior Exposure	Wet service conditions? No Incised lumber? No

Calculate Span Options

Go to Maximum Span Calculator for Wood Joists & Rafters

LIMITS OF USE

HELP

RESTART



Span Calculator for Wood Joists and Rafters available for the iPhone.

Species	Grade	Select Structural	
		No. 1	No. 2
Douglas Fir-Larch	2x8	2x8	2x8

While every effort has been made to insure the accuracy of the information presented, and special effort has been made to assure that the information reflects the state-of-the-art, neither the American Wood Council nor its members assume any responsibility for any particular design prepared from this on-line Span Calculator. Those using this on-line Span Calculator assume all liability from its use.

Comments? info@awc.org

When!



**Maximum Span Calculator
for Wood Joists & Rafters**

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Species	Douglas Fir-Larch
Size	2x10
Grade	No. 2
Member Type	Floor Joists
Deflection Limit	L/480
Spacing (in)	16
Exterior Exposure	Wet service conditions? No Incised lumber? No
Live Load (psf)	40
Dead Load (psf)	15

Calculate Maximum Horizontal Span

Go to Span Options Calculator for Wood Joists & Rafters

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The Maximum Horizontal Span is:

14 ft. 11 in.

with a minimum bearing length of **0.58 in.** required at each end of the member.

Property	Value
Species	Douglas Fir-Larch
Grade	No. 2
Size	2x10
Modulus of Elasticity (E)	1600000 psi
Bending Strength (F _b)	1138.5 psi
Bearing Strength (F _{cp})	625 psi
Shear Strength (F _v)	180 psi

Note: the 1138.5 and 180 are same as with hand calcs!

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(for 2x10)