

Slope Factor Chart

The slope factor chart converts each roof pitch from 1/12 through 24/12 into degrees, multiplier, and rafter length per 12 inches of horizontal run. Slope factor equals $\sqrt{(12^2 + \text{rise}^2)} \div 12$. Multiply plan area or horizontal run by the listed factor...

Slope Factor Chart: complete printable lookup table

Pitch	Angle	Slope factor	Rafter per 12 in run
1/12	4.76°	1.0035	12.042 in
2/12	9.46°	1.0138	12.166 in
3/12	14.04°	1.0308	12.369 in
4/12	18.43°	1.0541	12.649 in
5/12	22.62°	1.0833	13.000 in
6/12	26.57°	1.1180	13.416 in
7/12	30.26°	1.1577	13.892 in
8/12	33.69°	1.2019	14.422 in
9/12	36.87°	1.2500	15.000 in
10/12	39.81°	1.3017	15.620 in
11/12	42.51°	1.3566	16.279 in
12/12	45.00°	1.4142	16.971 in
13/12	47.29°	1.4743	17.692 in
14/12	49.40°	1.5366	18.439 in
15/12	51.34°	1.6008	19.209 in
16/12	53.13°	1.6667	20.000 in
17/12	54.78°	1.7341	20.809 in
18/12	56.31°	1.8028	21.633 in
19/12	57.72°	1.8727	22.472 in
20/12	59.04°	1.9437	23.324 in
21/12	60.26°	2.0156	24.187 in
22/12	61.39°	2.0883	25.060 in
23/12	62.45°	2.1619	25.942 in
24/12	63.43°	2.2361	26.833 in