



Batter	Angles from Horizontal D°M'S"	Angles from Vertical Decimal
½ : 12	2° 23' 09.40"	2.3859
⅝ : 12	2° 58' 53.26"	2.9815
¾ : 12	3° 34' 34.80"	3.5763
⅞ : 12	4° 10' 13.57"	4.1704
1 : 12	4° 45' 49.11"	4.7636
1 : 6	9° 27' 44.36"	9.4623
1 : 4	14° 02' 10.48"	14.0362
1 : 3	18° 26' 05.82"	18.4349

Slope English	Angles from Horizontal D°M'S"	Angles from Horizontal Decimal
½ : 1	63° 26' 05.82"	63.4349
1 : 1	45° 00' 00.00"	45.0000
1½ : 1	33° 41' 24.24"	33.6901
2 : 1	26° 33' 54.18"	26.5651
3 : 1	18° 26' 05.82"	18.4349
4 : 1	14° 02' 10.48"	14.0362

Grade	Angles from Horizontal D°M'S"	Angles from Horizontal Decimal
1%	0° 34' 22.58"	0.5729
1½%	0° 51' 33.74"	0.8594
2%	1° 08' 44.75"	1.1458
2½%	1° 25' 55.55"	1.4321
3%	1° 43' 06.09"	1.7184
4%	2° 17' 26.20"	2.2906
5%	2° 51' 44.56"	2.8624
6%	3° 26' 00.11"	3.4336
7%	4° 00' 15.02"	4.0042
8%	4° 34' 26.12"	4.5739
9%	5° 08' 33.95"	5.1428
10%	5° 24' 38.14"	5.7106
11%	6° 16' 38.27"	6.2773
12%	6° 50' 33.98"	6.8428
12½%	7° 07' 30.06"	7.1250
15%	8° 31' 50.76"	8.5308

Table 1A.A.2 Useful Angles