

Mountain Navigation Grid

Below is a mountain navigation grid to aid calculating time and distance from the map. These are particularly handy for anybody doing Mountain Leader Award Training and Assessment, Winter Mountain Leader Training and Assessment etc.

1:50K	1:25K	Land	Kilometres per hour			
MM	MM	Metres	5 Kph	4 Kph	3 Kph	2 Kph
20	40	1000	12	15	20	30
16	32	800	10	12	16	24
14	28	700	9	11	14	21
10	20	500	6	7.5	10	15
8	16	400	5	6	8	12
4	8	200	2.5	3	4	6
2	4	100	1.25	1.5	2	3
1 Contour			1	2	3	4
H MM	H MM	Contour	Angle	Foreshortening effect 50 M		
1 MM	2 MM	1	11 Deg	1 Metre		
1 MM	2 MM	2	22 Deg	4 Metres		
1 MM	2 MM	3	31 Deg	8 Metres		
1 MM	2 MM	4	38 Deg	14 Metres		
1 MM	2 MM	5	45 Deg	28 Metres		
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Notes:

In order to keep the grid nice and small, the following terms have been abbreviated:

1:50K = 1:50,000

1:25K = 1:25,000

MM = Millimetres

M = Metres

Kph = Kilometres per hour

H MM = Horizontal distance measured in Millimetres

Deg = Degrees

The grid can be used with both 1:25,000 and 1:50,000 scale maps by using the two columns on the left hand side.

In many cases modern compasses have a romer scale, which will negate the need to measure in millimetres keeping things even simpler.

Please feel free to print this off and use it, give it to your mates. This grid is totally free from copyright and has been produced by generations of Mountaineering Instructors and navigation enthusiasts. If you do hand it out I would be grateful if you would acknowledge the source.

I can't guarantee against any errors or omissions but please let me know if you spot anything and it can be corrected as soon as possible.

I would definitely recommend cutting it out and laminating it to give it some protection from the British weather.