

How to interpret 8 digit Grid references

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Six figure grid references are commonly used for topographic maps with a scale of 1:50,000.

An example is shown in the border on all published Canadian National Topographic Series (NTS) 1:50,000 scale maps

Eight figure grid references really require a larger scale than this.

The numbered grid lines on the E2C 1:25,000 scale map are 1,000 metres apart (1 km).

On a 6-figure grid reference the last digit refers to a tenth of the distance between the 1km grid reference lines, so the reference is only accurate to within 100 metres.

With an 8-figure reference, the last figure in each half of the reference (the easting and the northing) again subdivides this tenth into 10 parts, so that the accuracy is then to within 10 metres, and this is why you need a larger scale than 1:50,000 to make good use of it.

The Distance Bearing (DB) and Line-Orienteering (Line-O) maps are at a 1:10,000 scale and also have secondary grid lines at a 500 metre spacing.

So, for example a 6-figure grid reference of 483 725, the easting is 483, which means that the marked grid-line is a 48, and your reference point is 3-tenths of the distance to the 49 grid-line, that is, in the fourth sub-division of the 48 - 49 kilometre square.

To add a fourth digit to this, you need to divide the sub-division into tenths again, and measure (or estimate) the number of sub-sub-tenths from the 483 sub-division to the 484 sub-division. If the reference point is half-way, for example, then the four-figure easting is 4835.

Similarly, for the northing. 725 means that from the marked grid-line 72 you go to the sixth sub-division; divide this sub-division into tenths and estimate the position of your reference with respect to the 725 and 726 lines. If, say one-tenth of the way to the 726 line, then the four-figure easting is 7251.

The 8-figure is, in that case, 4835 7251.