

Setting Out Example

Points 'R' and 'S' are Control Stations – their co-ordinates are known, and so is the location of the points in the field.

Point 'P' is to be set out (its position is to be marked in the field with a peg).

How would you do this with 1 theodolite and 1 tape measure?

How would you do this with 2 theodolites and no tape measure?

◇ P

1270.48mE, 583.64mN

△
S

1285.55mE, 555.87mN

R △

1246.71mE, 545.33mN

Solution – By Bearing and Distance

(with 1 theodolite and 1 tape measure)

Set out point P by bearing and distance from Point S (it is nearest)

Bearing S to P is:

Distance S to P is:

To correctly orientate the theodolite, Bearing S to R is:

◇ P

1270.48mE, 583.64mN

△
S

1285.55mE, 555.87mN

R △

1246.71mE, 545.33mN

Solution – By Intersection

(with 2 theodolites and no tape measure)

Set out point P by intersection from Point R and Point S.

Bearing R to P is:

Bearing S to P is:

To correctly orientate the theodolites,

Bearing R to S is:

Bearing S to R is:

