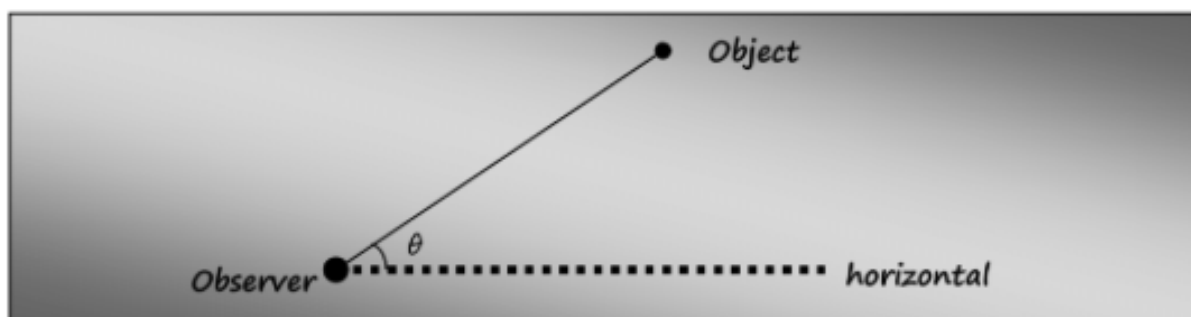


## Angles of elevation and depression

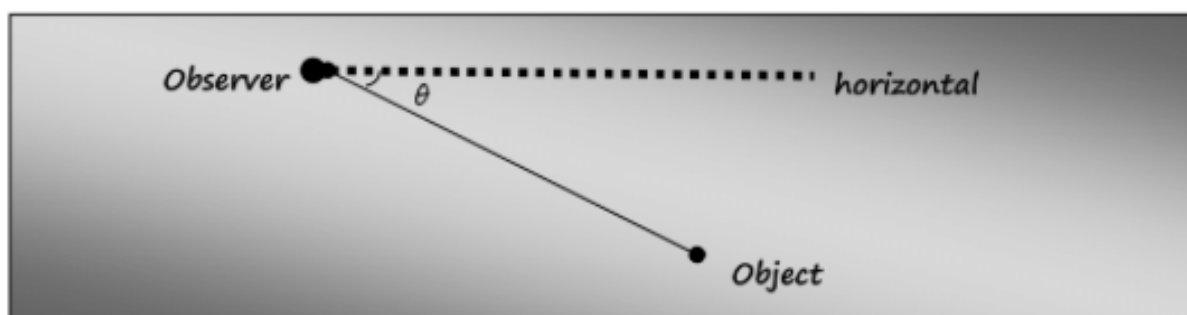
### Angle of elevation

An object is above the horizontal level of an observer.



### Angle of depression

An object is below the level of an observer.







## True bearing

1. Clockwise from the true north
2. Always 3 digits



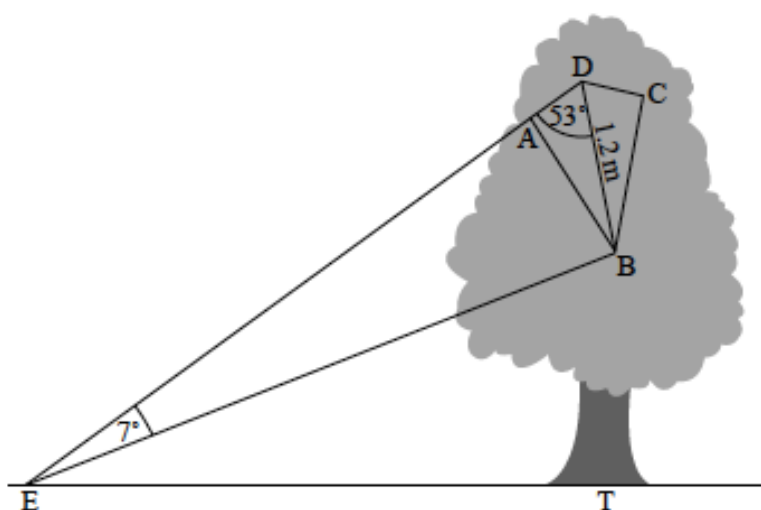
The bearing of B from A is  $048^\circ$ .  
The bearing of A from B is  $228^\circ$ .





### Exercise

1. Emily's kite ABCD is hanging in a tree. The plane ABCDE is vertical. Emily stands at point E at some distance from the tree, such that EAD is a straight line and angle BED =  $7^\circ$ . Emily knows BD = 1.2 metres and angle BDA =  $53^\circ$ , as shown in the diagram.



(a) Find the length of EB.

T is a point at the base of the tree. ET is a horizontal line. The angle of elevation of A from E is  $41^\circ$ .

(b) Write down the angle of elevation of B from E.

(c) Find the vertical height of B above the ground.

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