

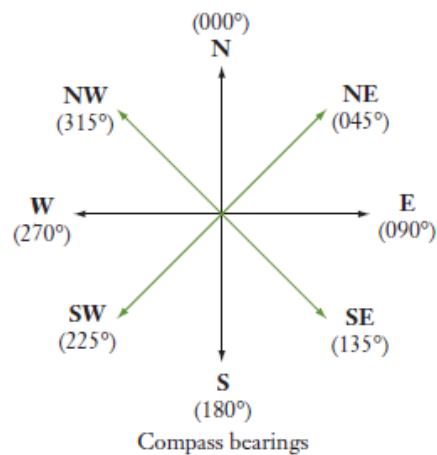
Bearings

- A **bearing** is an *angle measurement* used to describe the *direction* of one location **from** another. The angle is measured clockwise from North and is always written with 3 digits. This is called a **three-figure bearing** or a **True bearing**.

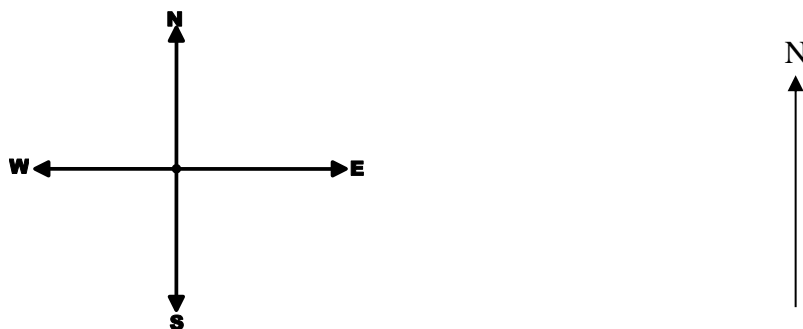
e.g. The bearing (direction) of Wagga from Sydney is 249° .



Compass bearings refer to eight points of the compass: north, north-east, east, south-east, south, south-west, west and north-west.



We often use an abbreviated compass rose when solving bearings problems.



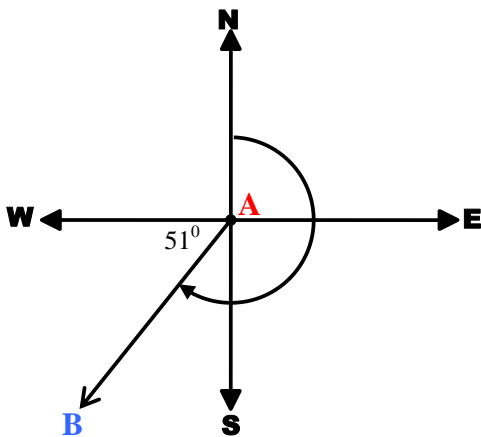
Example: Show the **bearing** (direction) of Darwin from Sydney. Write an estimate.



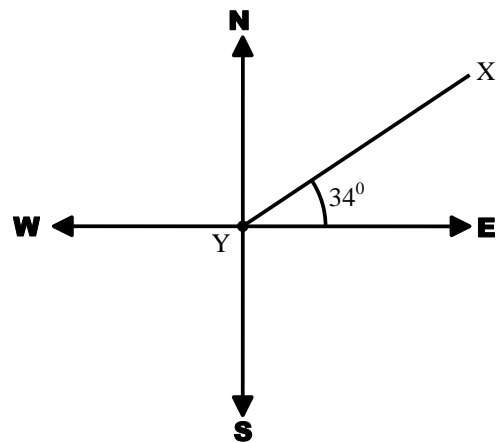
Example: Show the **bearing** (direction) of Sydney from Darwin. Write an estimate.



Example: Complete the following.



The bearing of _____ from _____
is _____

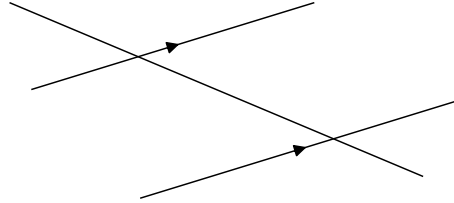
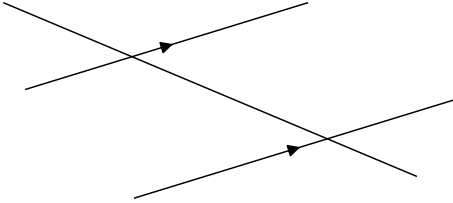


The bearing of _____ from _____
is _____

Parallel lines and bearings

We can use the properties of angles on **parallel lines** in bearings questions.

Recall: When parallel lines are cut by a transversal, **alternate angles are equal**.



Examples:

1. (a) Point **B** has a bearing of 055° **from** A. Sketch a diagram to show this.
(b) Using the same diagram, determine the bearing of A **from** B? _____
(**Hint:** Find pair of alternate angles after you draw the diagram.)

2. (a) Point C has a bearing of 210° from D. Sketch a diagram to show this.
(b) Using the same diagram, determine the bearing of D from C. _____
(**Hint:** Find pair of alternate angles after you draw the diagram.)

Example: A triathlete runs 10 km on a bearing of 200° from the end of a cycle leg to the finish line.

a) Draw a diagram to show this information.

b) How far south does the triathlete run? Answer to the nearest kilometre.

[Ans: 9km]

c) What is the bearing of the end of the cycle leg from the finish line?

[Ans: 20°]