

# Sailing around Sydney

Practice using Mathomat with maps, bearings and distances.

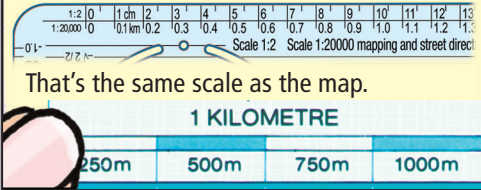
I've just been round Sydney Harbour. Can you spot these landmarks on the map? Estimate which is nearest to the middle of Sydney Harbour Bridge.

Use the mm ruler on your Mathomat to find out if you were correct.

Opera House	mm
Luna Park	mm
Kirribilli Point	mm

This map has a scale. 1 cm on the map equals 200m on the ground.

There's a useful scale along the bottom of Mathomat, marked in tenths of a kilometre.



Use the scale ruler to find the distance from Kirribilli Point to Bradleys Head.

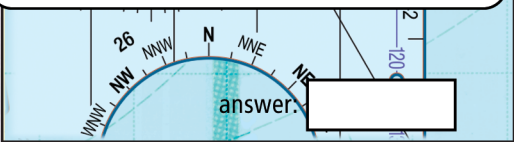
answer:  km



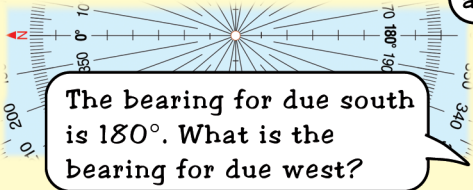
# Track the trip and put Jo's photos in order...

The compass rose shows cardinal points. North is at the top of a map. Make sure the rose points north and is centred over the place you are measuring from.

In what direction is Sydney Harbour Bridge from the Opera House?

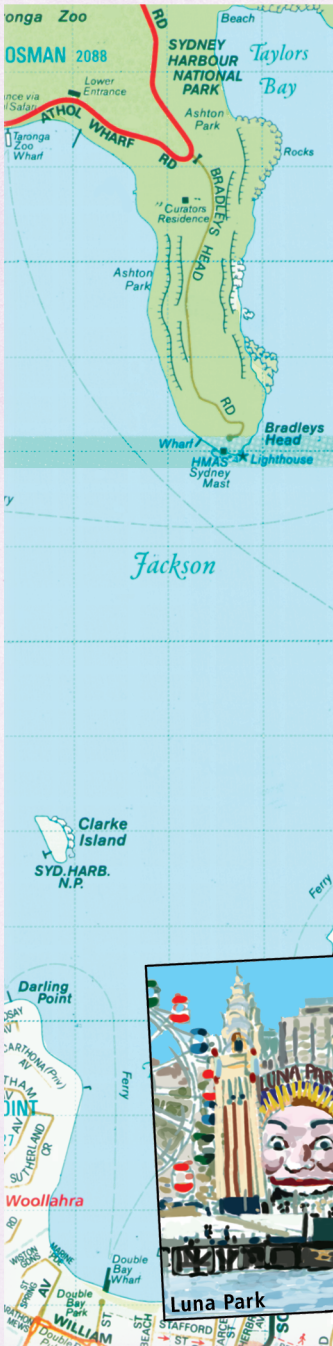


For more precise bearings, use the bearings protractor, which measures in degrees, going clockwise from North.



The bearing for due south is  $180^\circ$ . What is the bearing for due west?

Now track my route! Can you work out the bearings and distances at each stage?



**Draw in each stage on the map and complete the boxes. Measure from each stage:**

- We left the marina at Rushcutters Bay and sailed up past the Naval Depot.  km (from start)  
 bearing
- Then we sailed until we were 400 metres due south of McMahon's Point.  km (from stage 1)  
 bearing
- We went due north for 200 metres.  bearing (from stage 2)
- We then took a bearing of  $045^\circ$  and sailed for another 200 metres.  km (from stage 3)  
 compass
- At this point we turned ESE and sailed until we were 100 metres due south of Kirribilli Point.  km (from stage 4)  
 bearing
- We went very close to Robertson's Point, and then sailed on in the same direction for another 0.4 kms.  km (from stage 5)  
 compass
- We then returned to the marina.  km (from stage 6)  
 bearing

These are a few of the photos I took. In what order were they taken? Put the letters in the numbered boxes.

**Order of photos**

1	2	3	4
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

