

# The Panda Math Tutor

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## Bearings

Student Worksheet  
Questions & Working Space  
IGCSE Mathematics

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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Teach → Practice → Reason → Apply → Challenge → Master

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**Note**

**How to use this worksheet.** These questions are built *strictly* on the *Bearings* notes: the three rules of bearings, compass points, measuring and drawing, angle rules with parallel North lines, back bearings, geometry of two-leg journeys, SOHC-AHTOA, the sine and cosine rules, and finding an unknown bearing.

**Always draw a diagram.** Even when a figure is printed for you, sketch the journey yourself and put a North arrow at *every* point you measure a bearing from. Most lost marks in this topic come from a missing North line.

**Three-figure answers.** Every bearing you write must have three digits —  $007^\circ$ ,  $064^\circ$ ,  $310^\circ$ . Give distances to 3 significant figures and bearings to the nearest degree unless told otherwise, and carry full calculator accuracy through the middle of a calculation.

**Working space.** Ruled lines follow each question. Harder questions have a teal **Hint** box; try the question first and use the hint only if you are stuck.

**Checking your answers.** Full step-by-step solutions, a marking scheme for the exam paper, and a quick answer key are in the separate booklet “*Bearings — Solutions & Answer Key*.” Try each question honestly before you look.

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## 1 Part I — Topic-by-Topic Exercises

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### 1.1 Understanding Bearings

**Exercise B1** *[Basic]*

Write each of the following as a correct three-figure bearing:

- (a)  $9^\circ$     (b)  $74^\circ$     (c)  $231^\circ$
- 
- 
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**Exercise B2** *[Basic]*

State the three rules that every bearing must obey.

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**Exercise B3** *[Standard]*

A student writes: “The bearing of  $B$  from  $A$  is  $58^\circ$ .” Explain what is wrong with the way this has been written, and write it correctly.

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**Exercise B4** *[Standard]*

A ferry starts by facing North and then turns  $126^\circ$  clockwise. Write down the bearing on which it is now travelling.

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**Exercise B5** *[Intermediate]*

A walker faces North and then turns  $47^\circ$  **anticlockwise**. Find the bearing on which she is now facing.

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**Hint**

Bearings are only ever measured clockwise, so an anticlockwise turn must be converted by subtracting from a full turn.

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## Preview ends here

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Bearings — Worksheet — €11.99

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