

Mathematics

Bearings on polar grids

Downloadable Resource

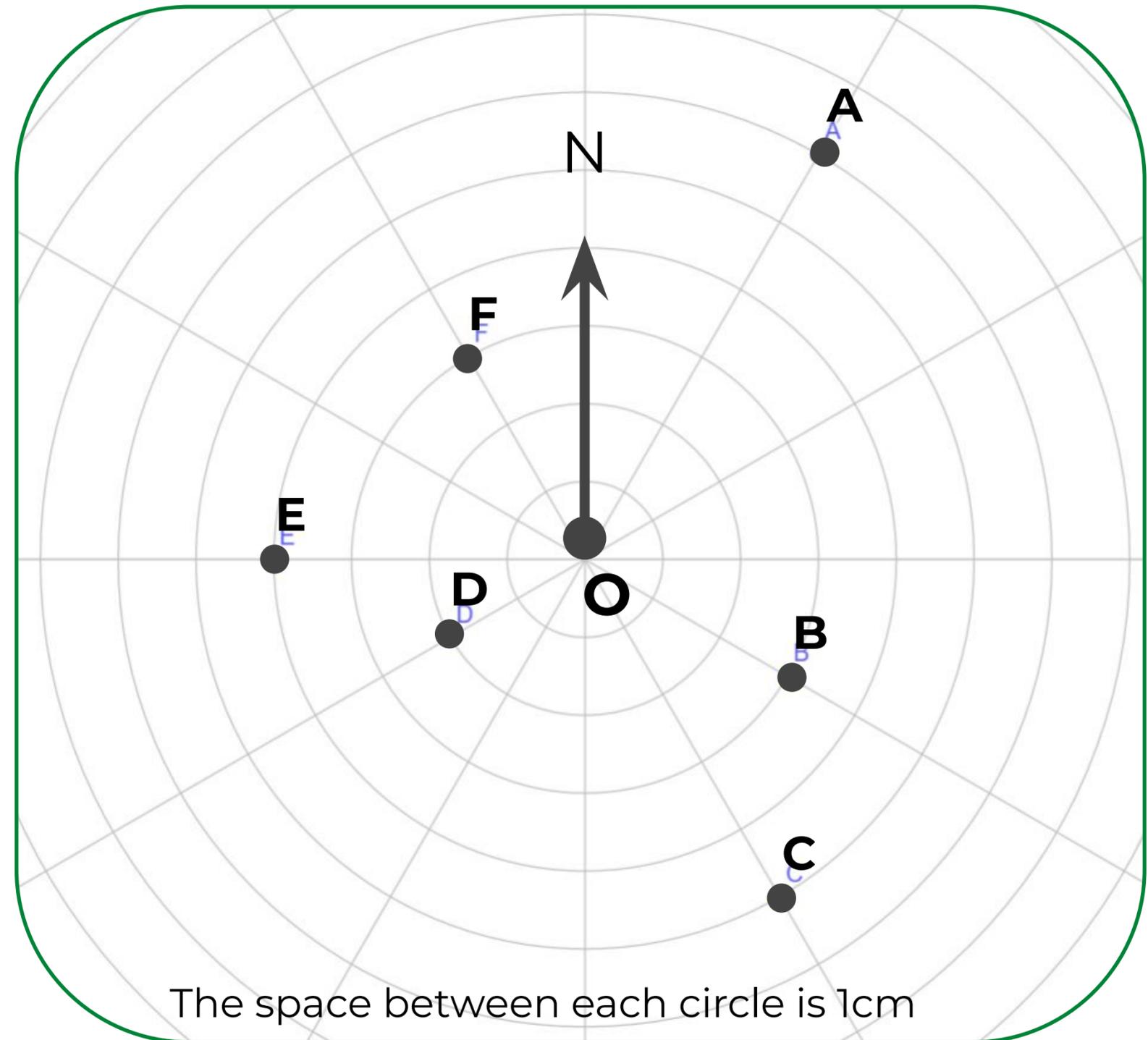
Mr Coward



Try this

Read Cala's statement. Can you make similar statements about the other points?

A is 6cm from **O**, on a bearing of 030°

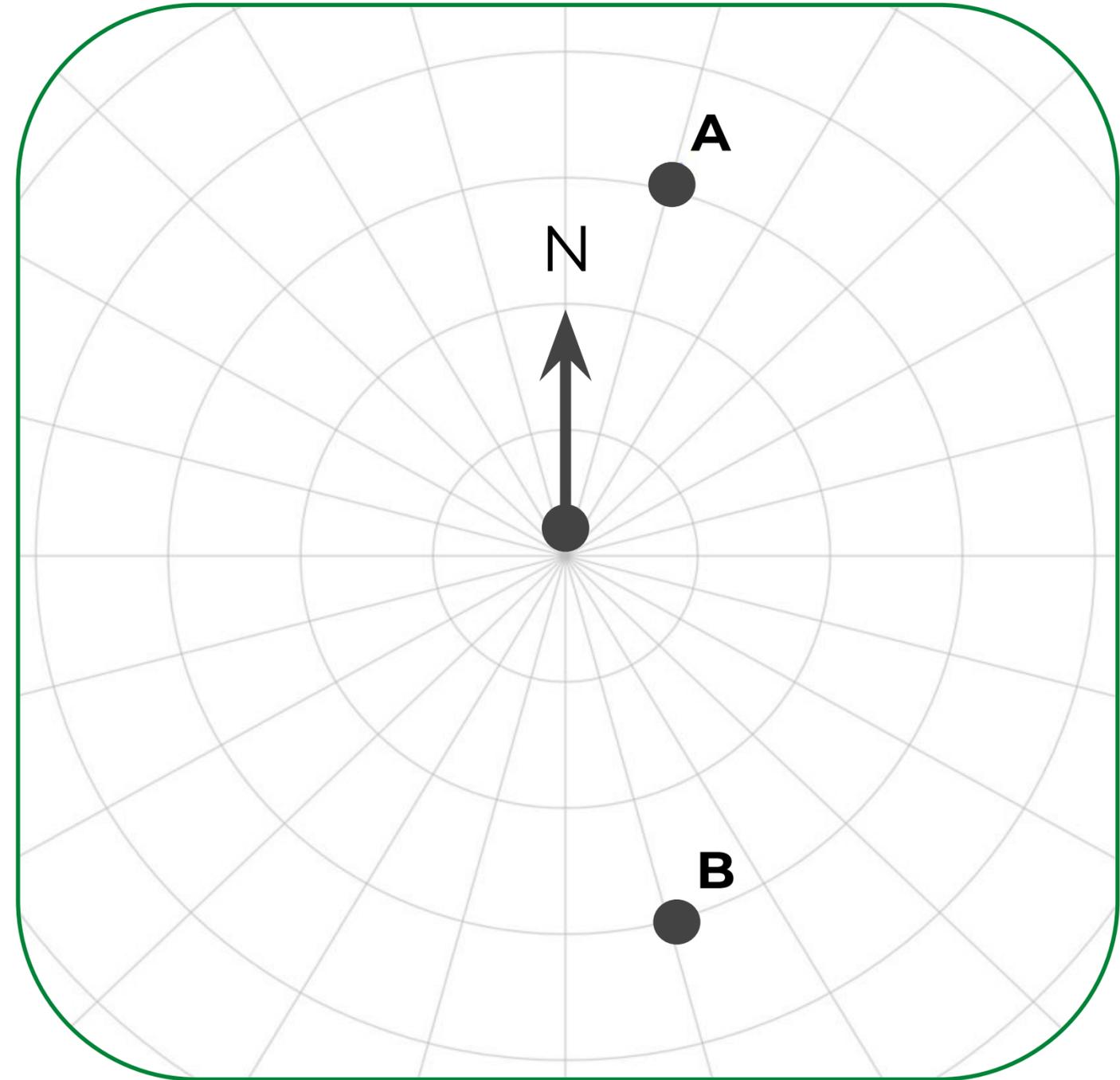


Connect

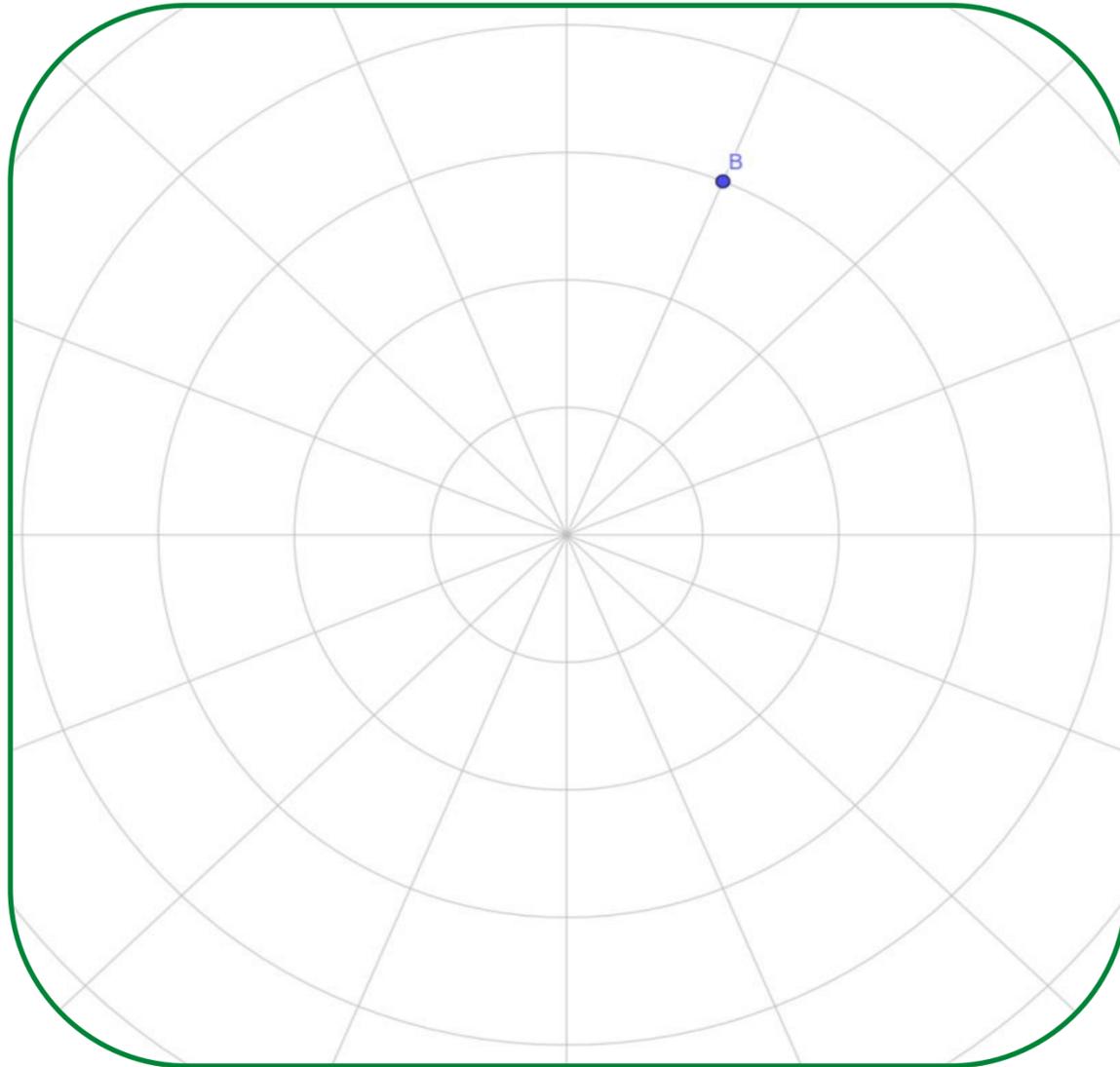
What are the bearings of A and B?

Could you add two more points to form a rectangle?

What are the bearings of these new points?



What calculation does not find the size of the angle between lines?



Option 1

$$360 \div 16$$

Option 2

$$90 \div 4$$

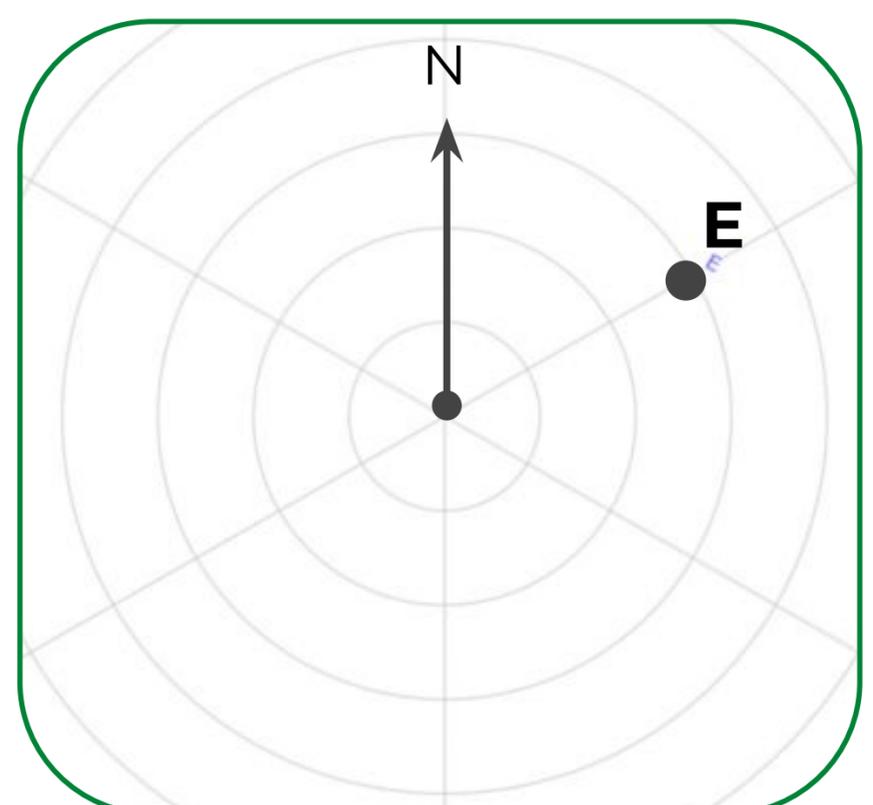
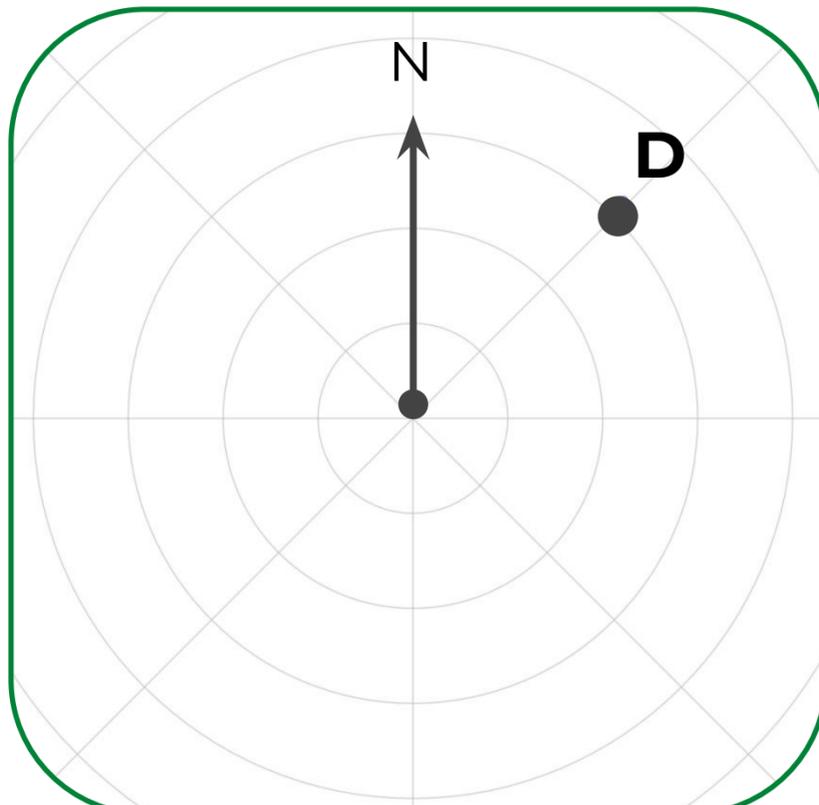
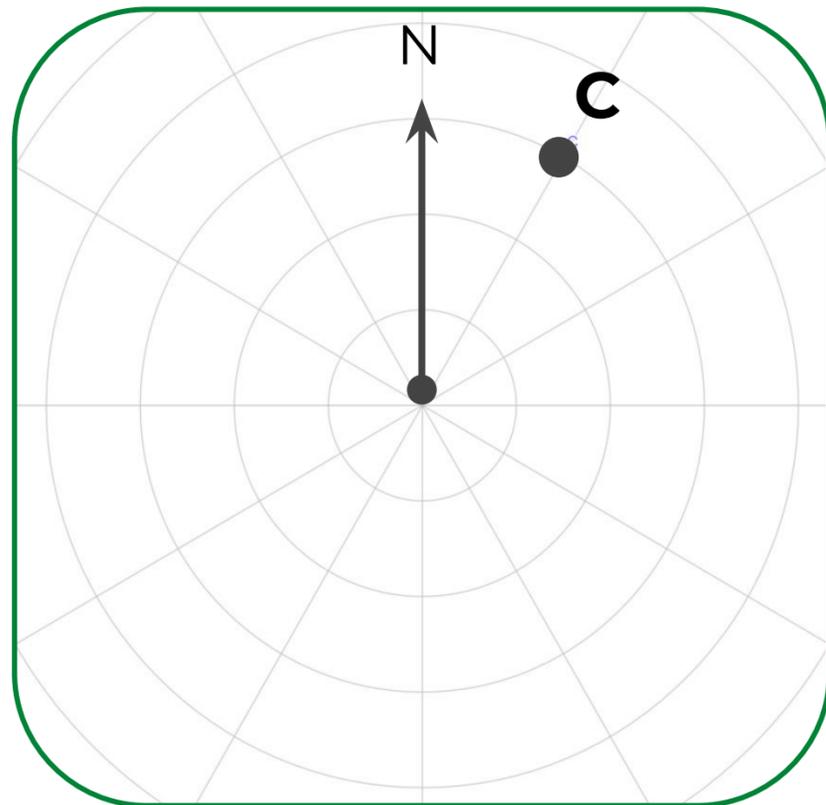
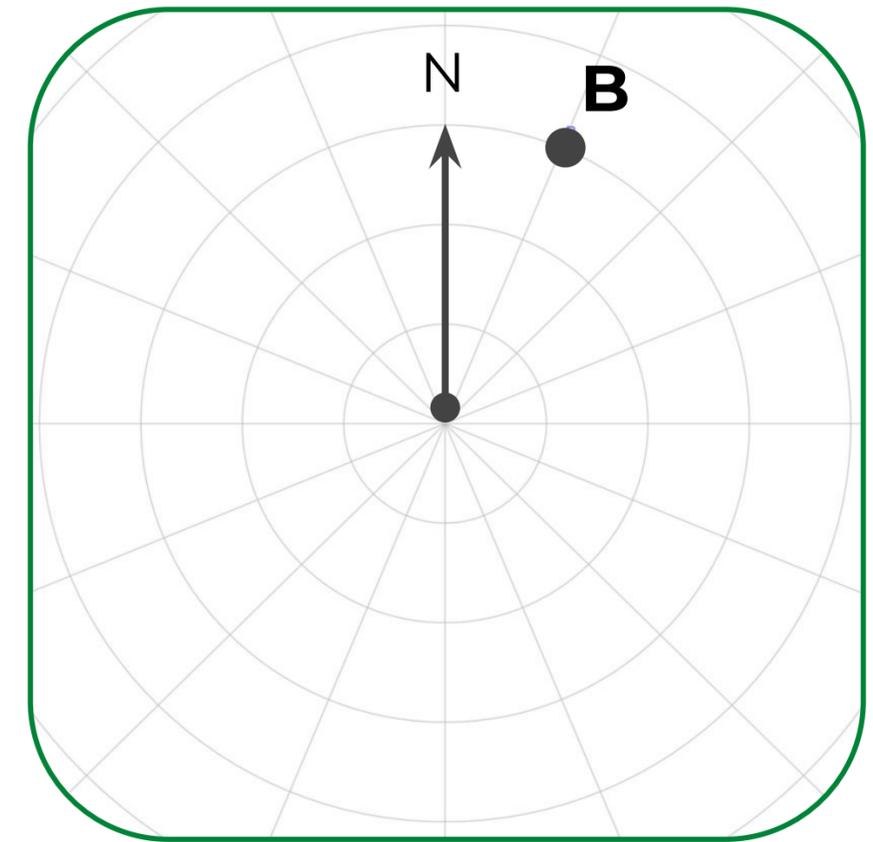
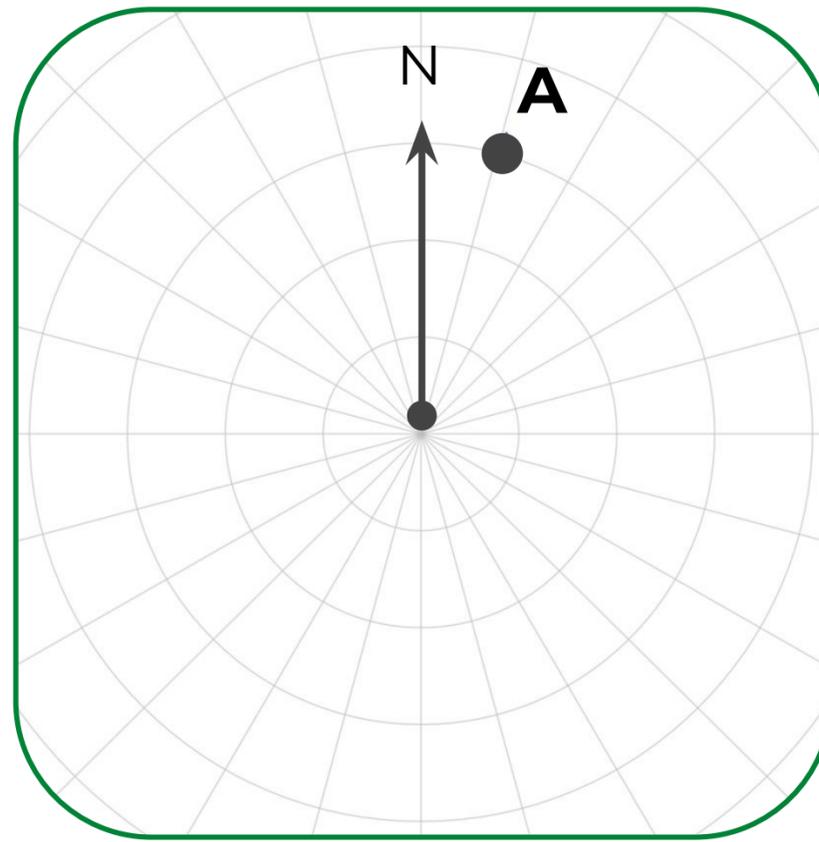
Option 3

$$180 \div 9$$



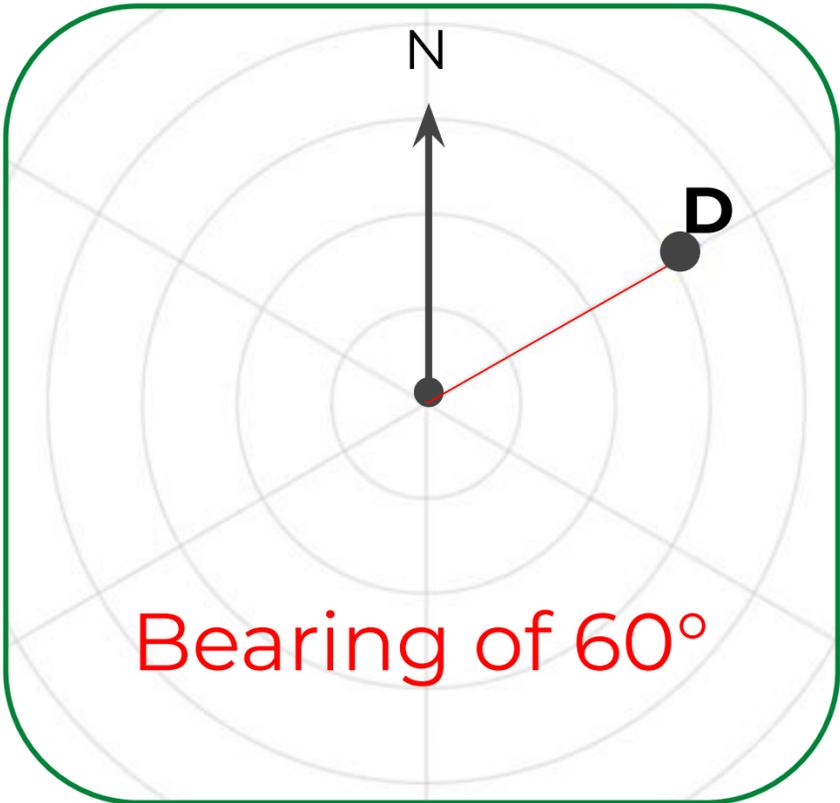
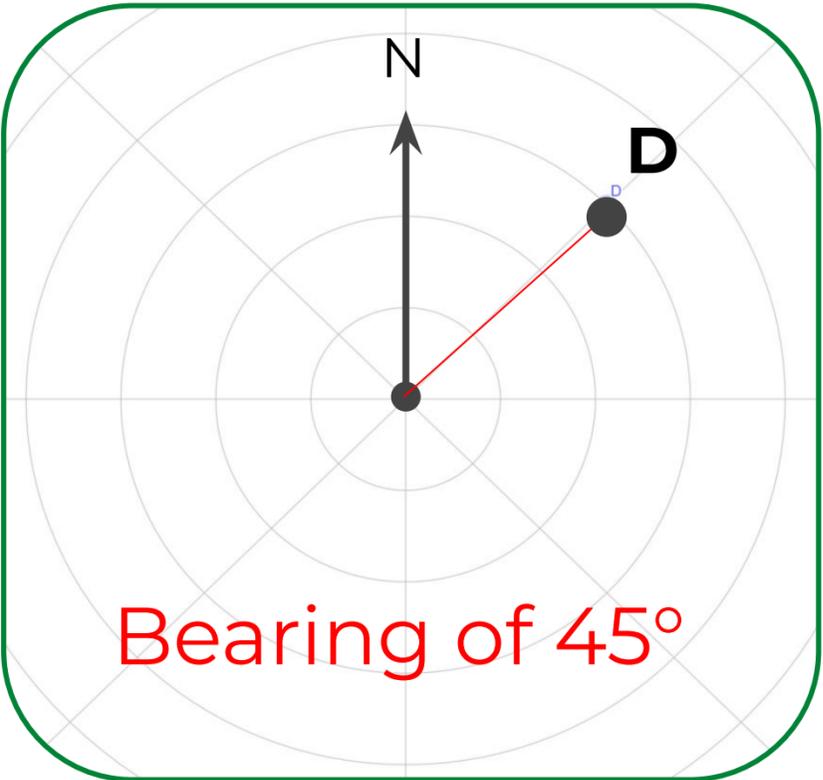
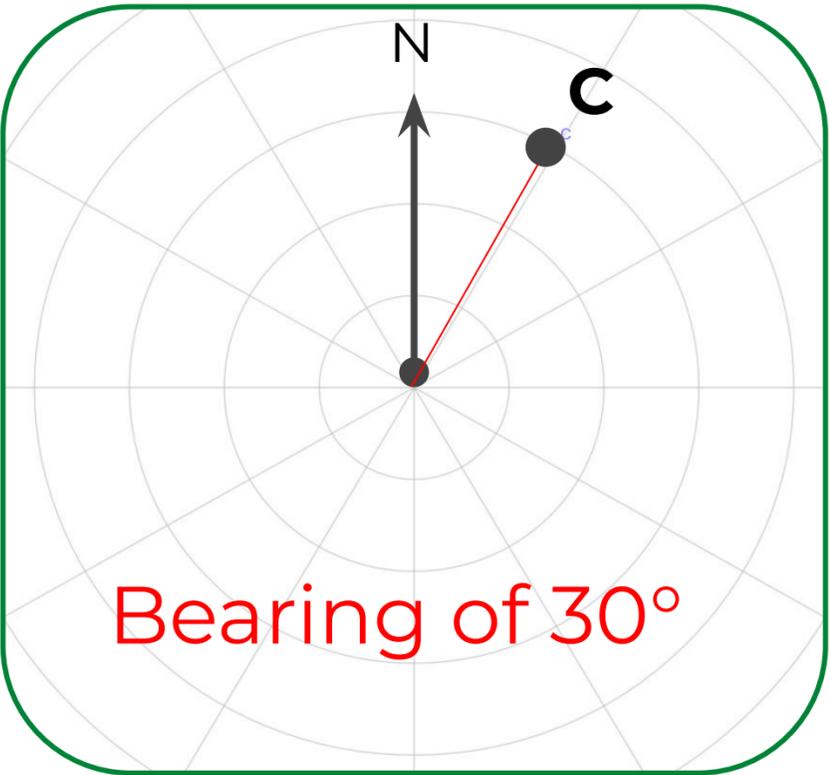
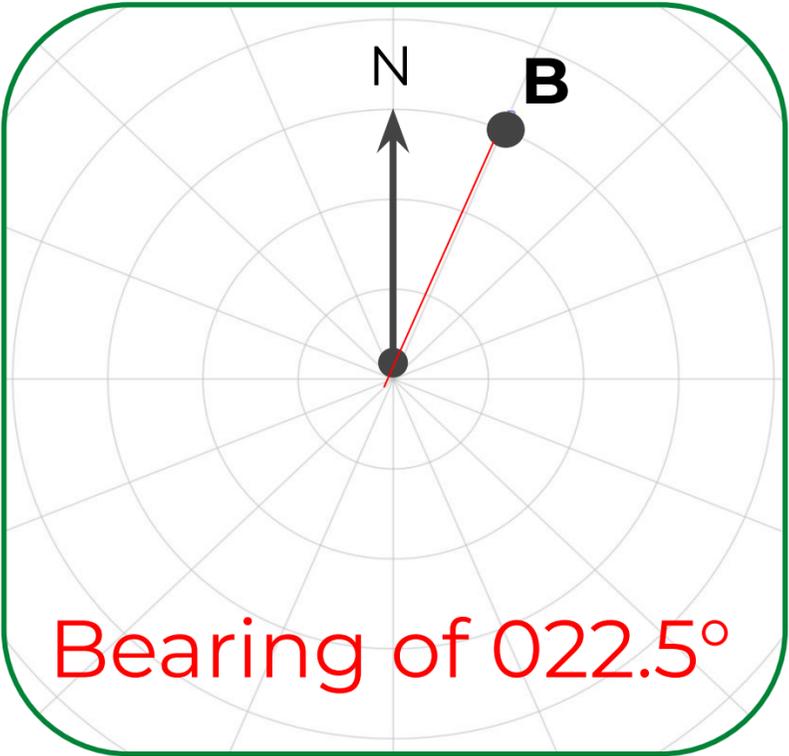
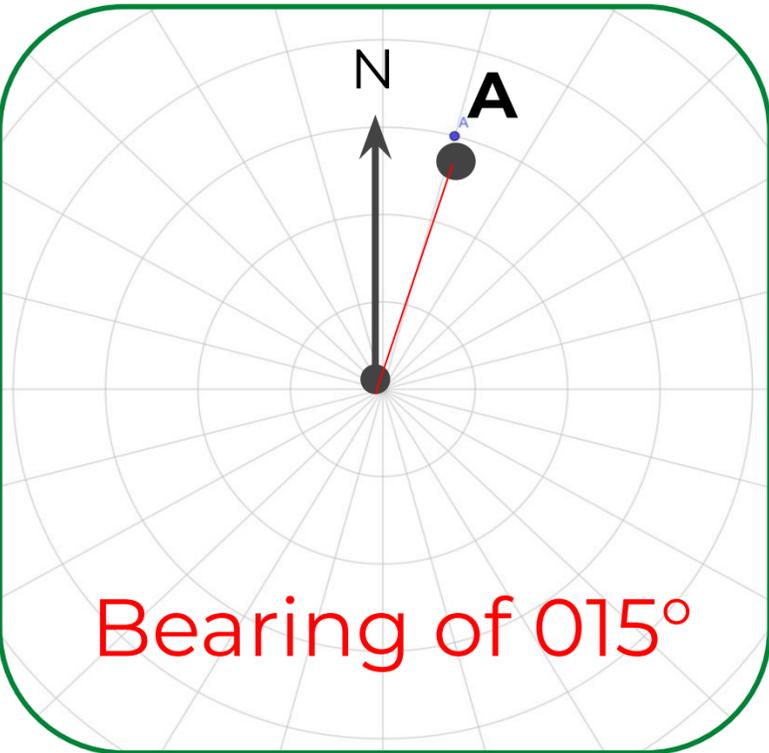
Independent task

- 1) Find the bearing of A, B, C, D, and E from O. What do you notice?
- 2) Draw a bearing of 60° of the three diagrams where it is easiest.



Independent task

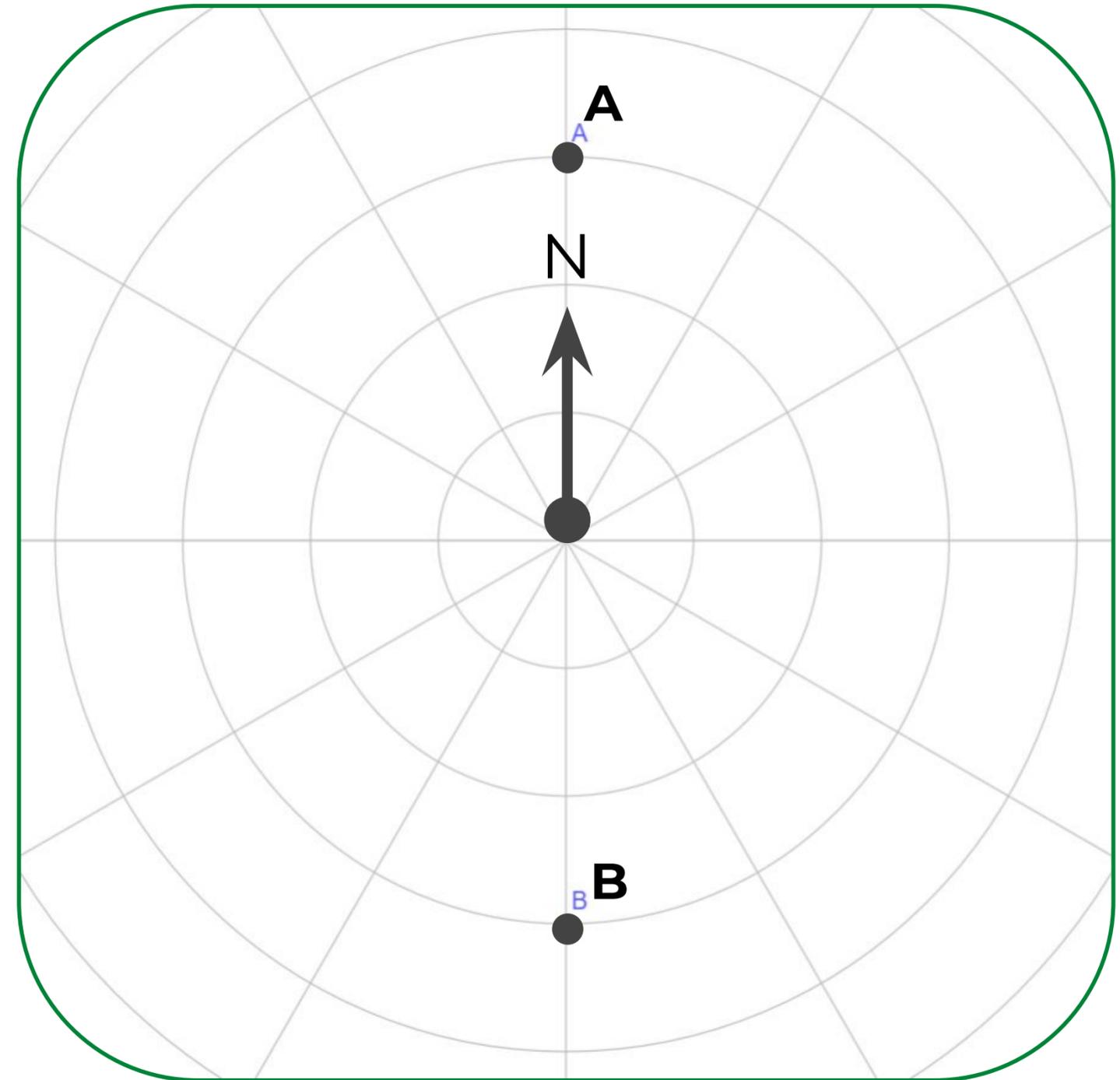
- 1) Find the bearing of A, B, C, D, and E from O. What do you notice?
- 2) Draw a bearing of 60° of the three diagrams where it is easiest.



Explore

Describe the position of two more points that form the vertices of the following quadrilaterals:

- 1) Kite
- 2) Square
- 3) Rhombus
- 4) Rectangle
- 5) Isosceles trapezium



**Pause the video to
complete your task**

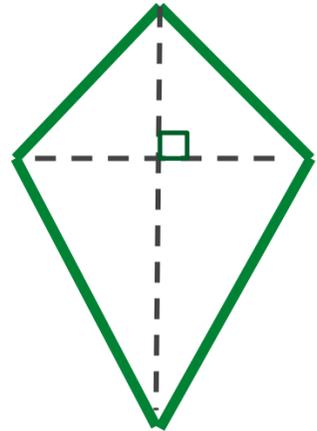


Resume once you're finished



Explore - hints

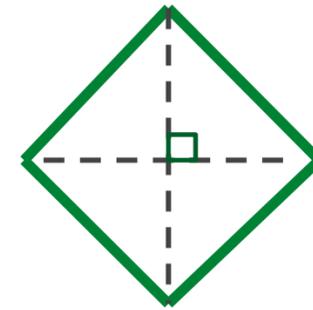
Kite



Two pairs of equal sides.

Diagonals meet at a right angle

Square

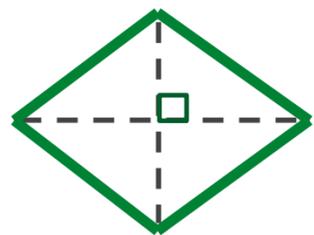


Four equal sides.

Diagonals meet at a right angle

Diagonals are equal length

Rhombus

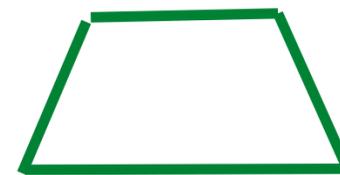


Four equal sides.

Diagonals meet at a right angle

Diagonals not equal length

Isosceles trapezium

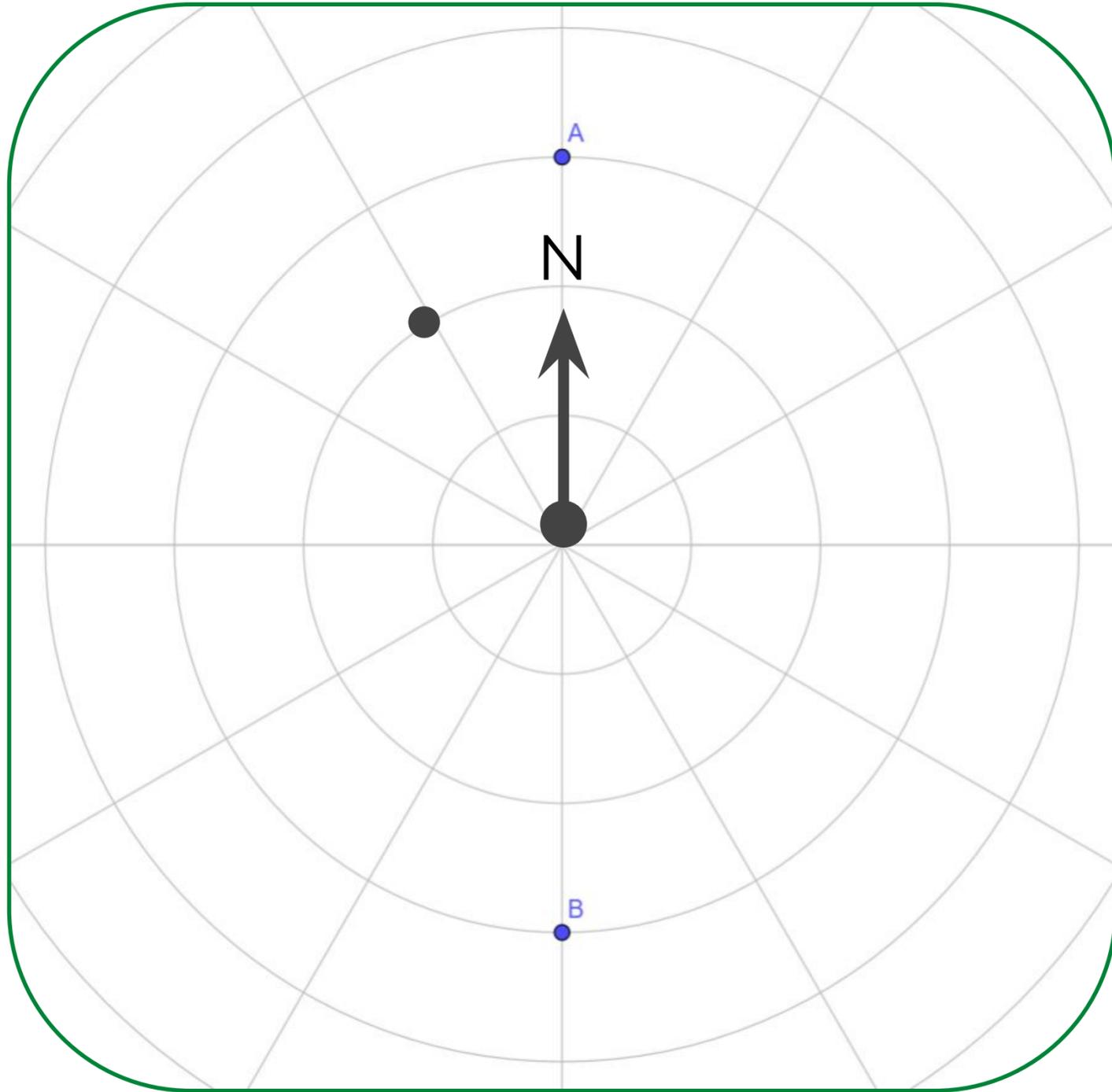


Non-parallel length are equal.

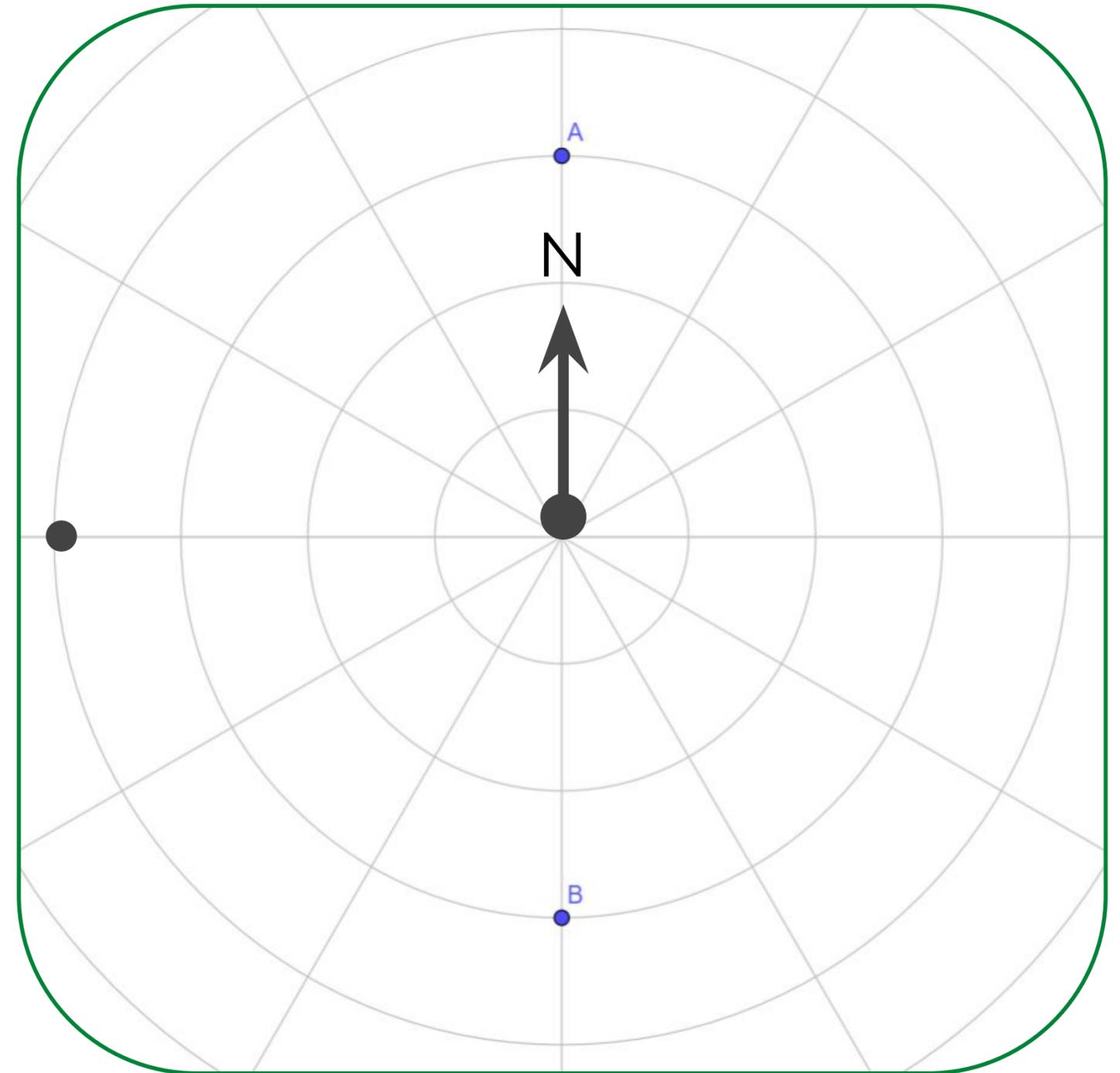
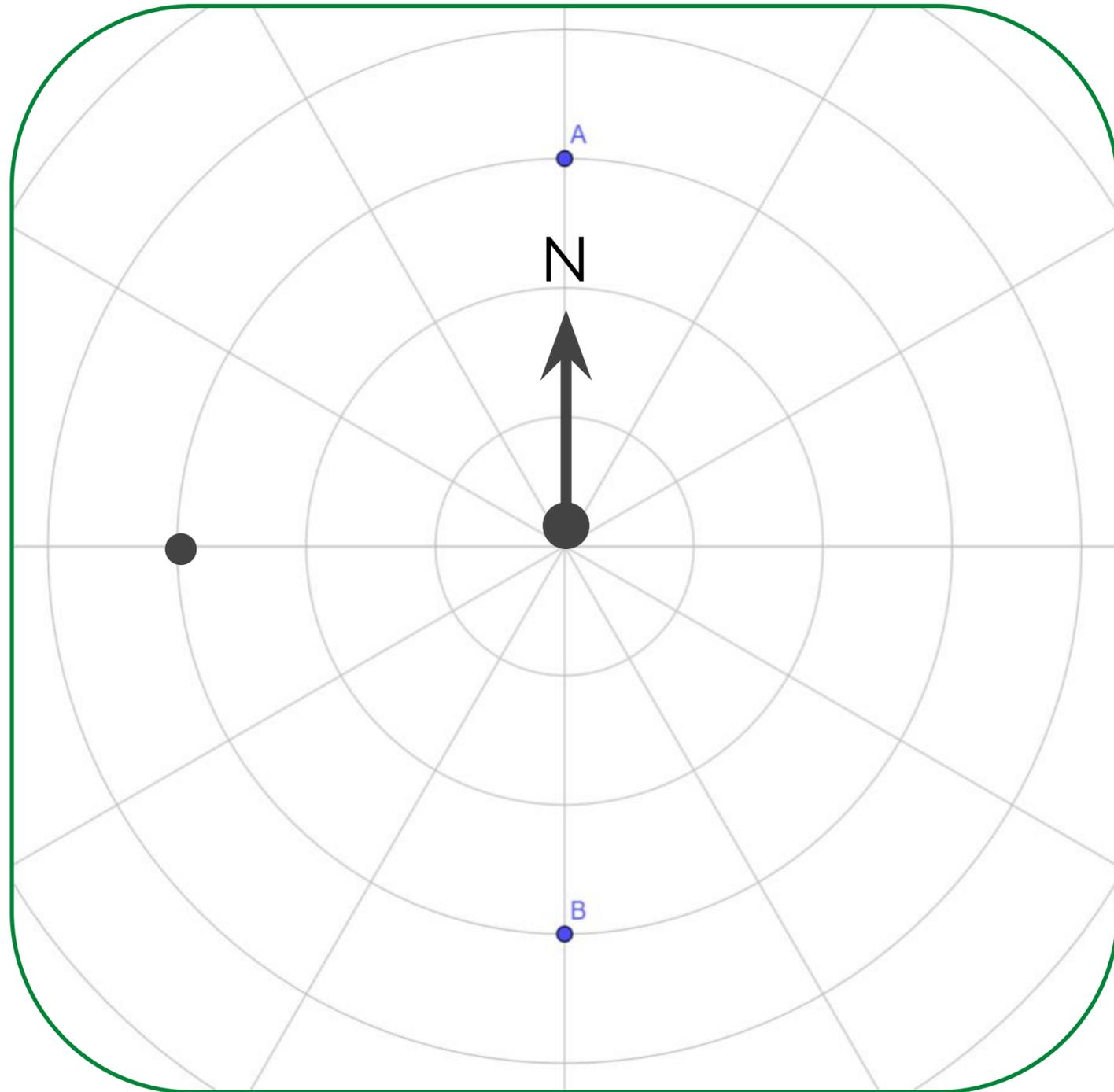
Diagonals do not meet at a right angle



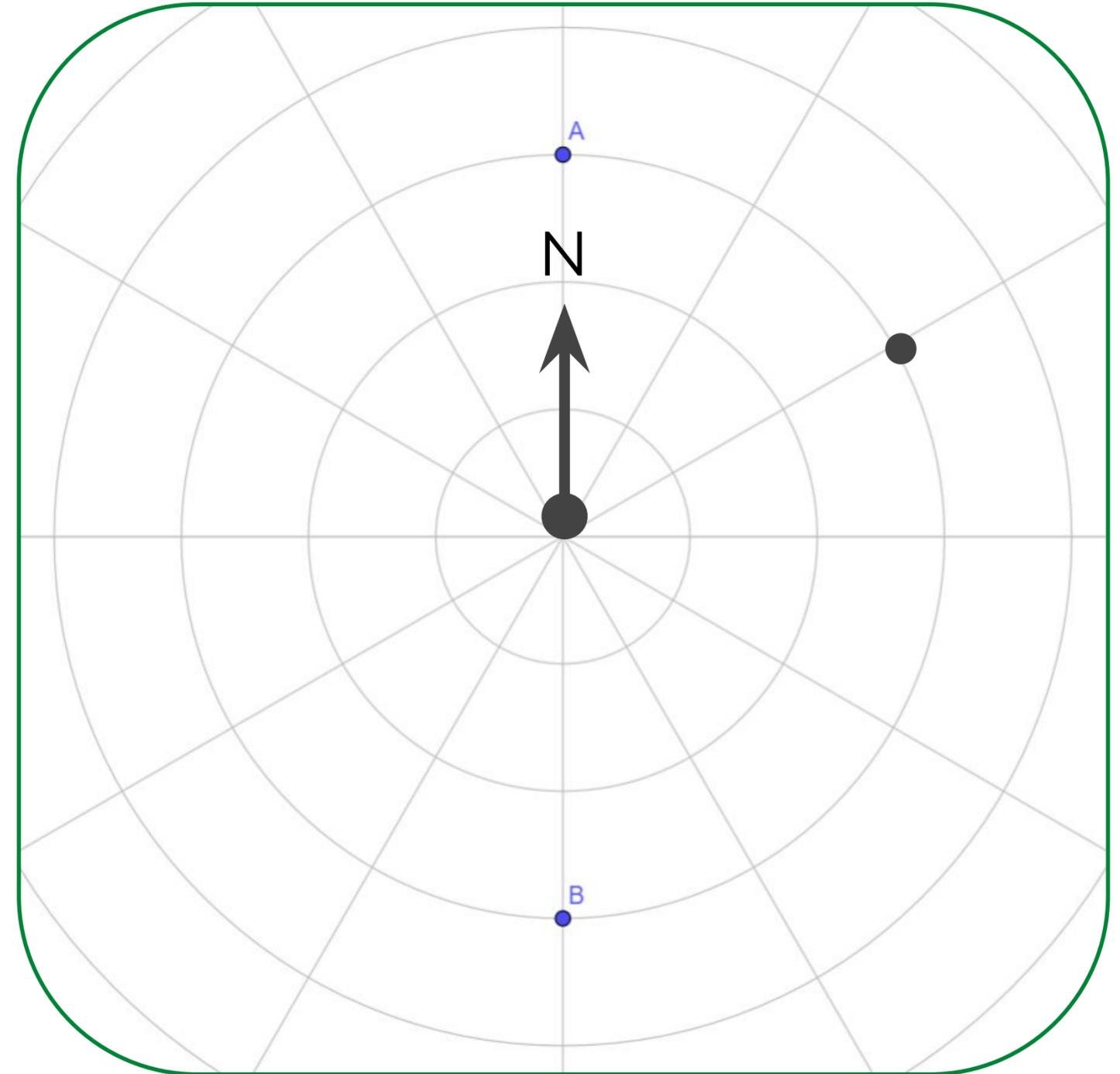
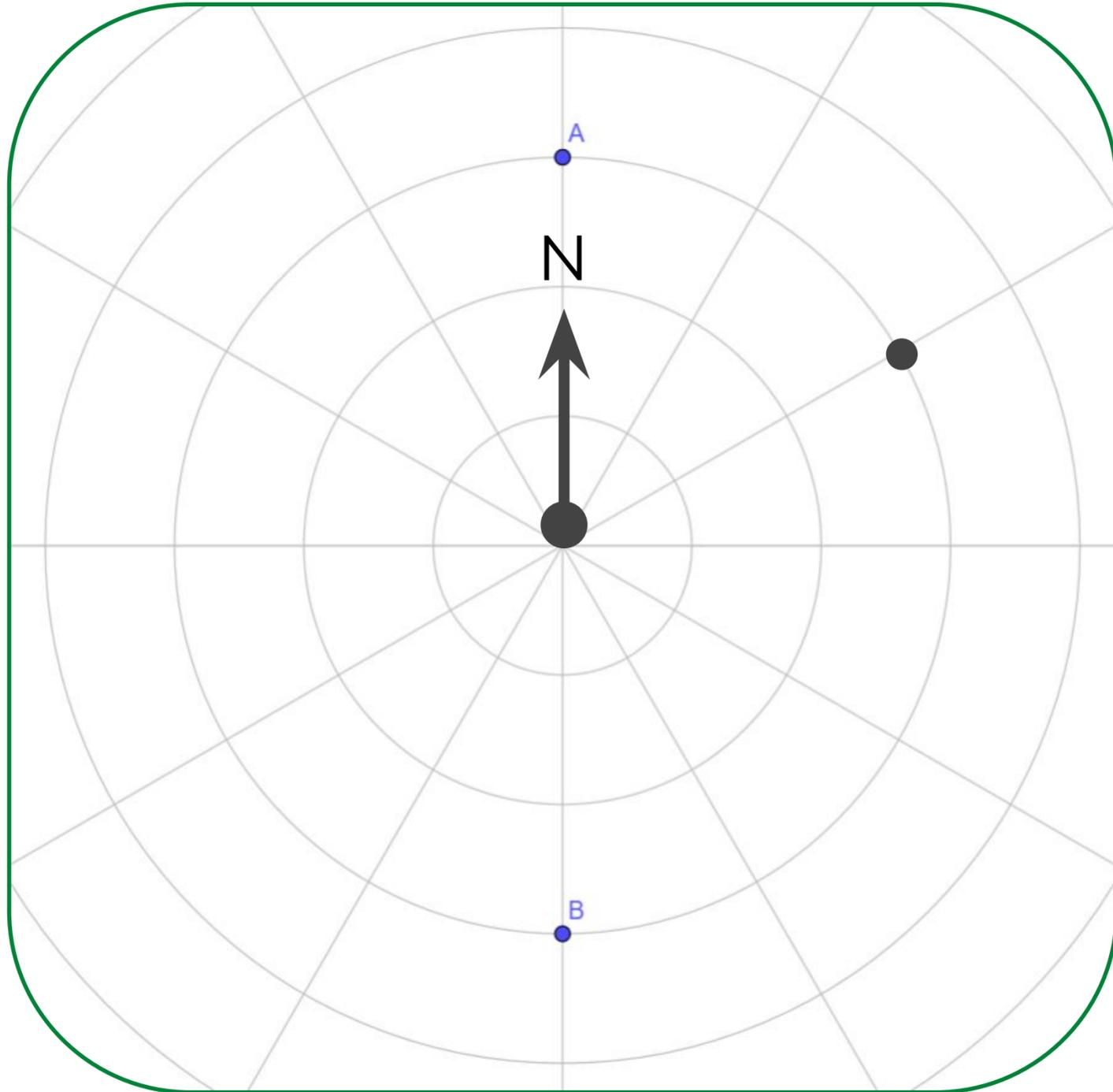
Explore - hints



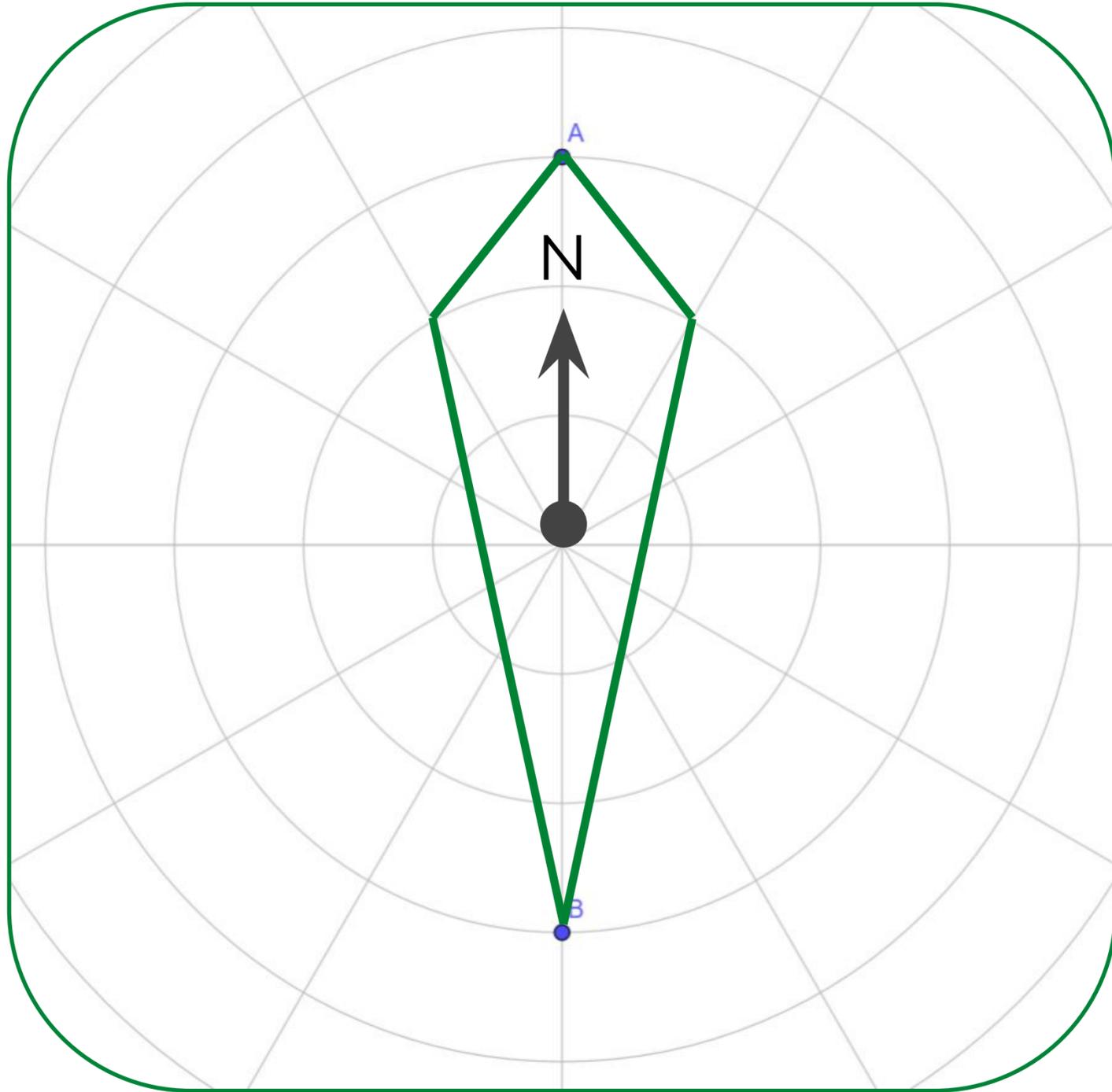
Explore - hints



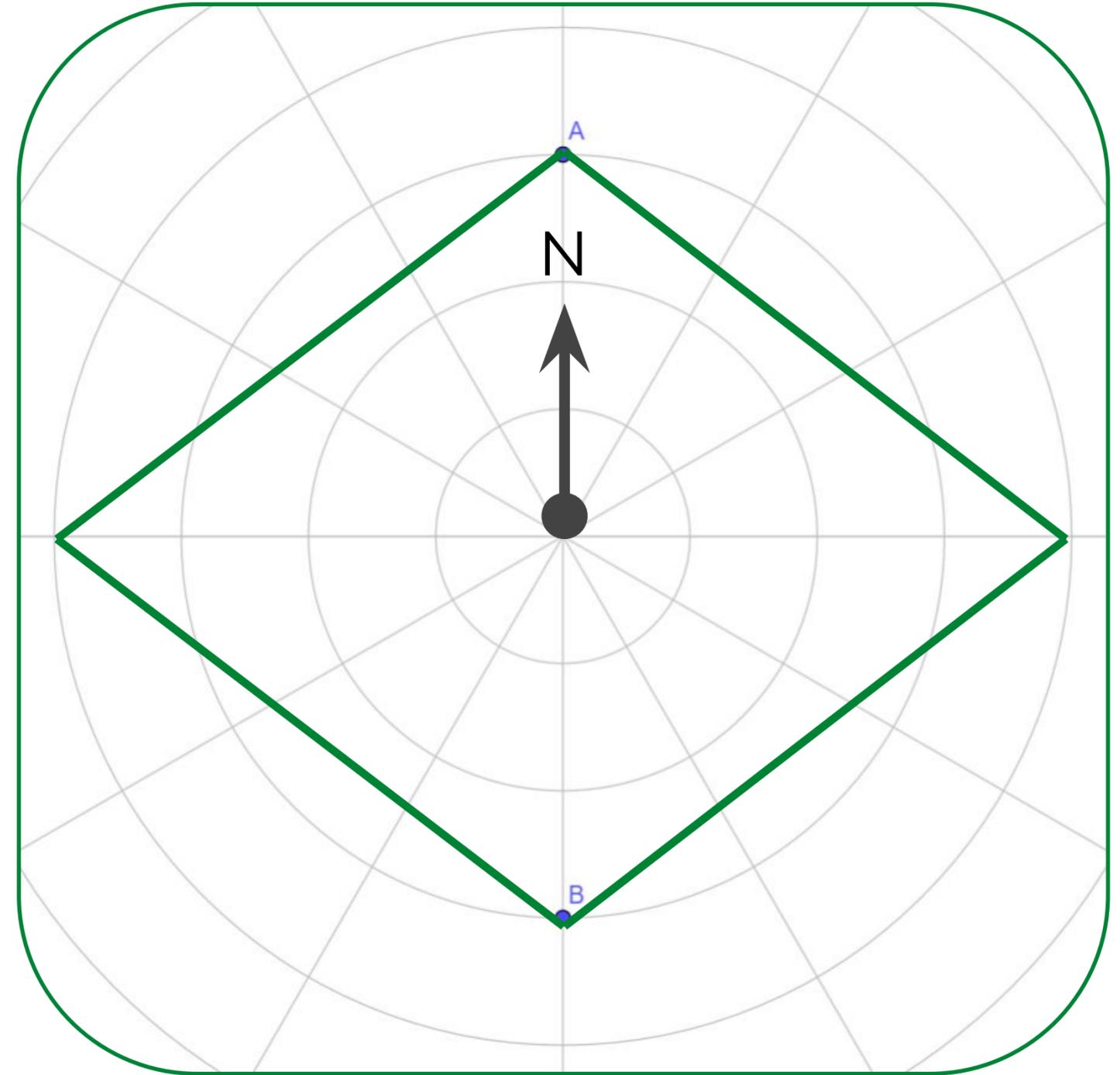
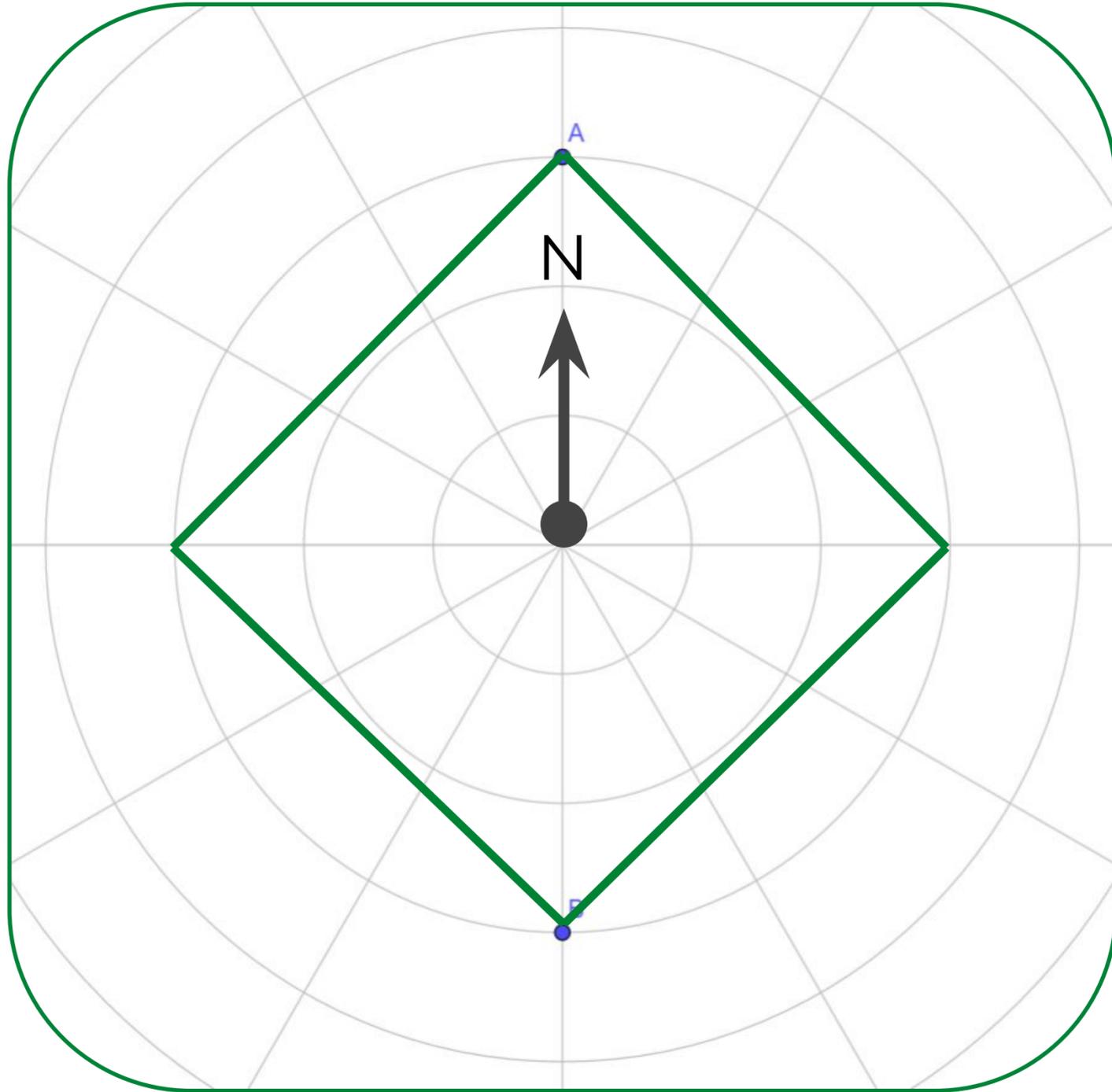
Explore - hints



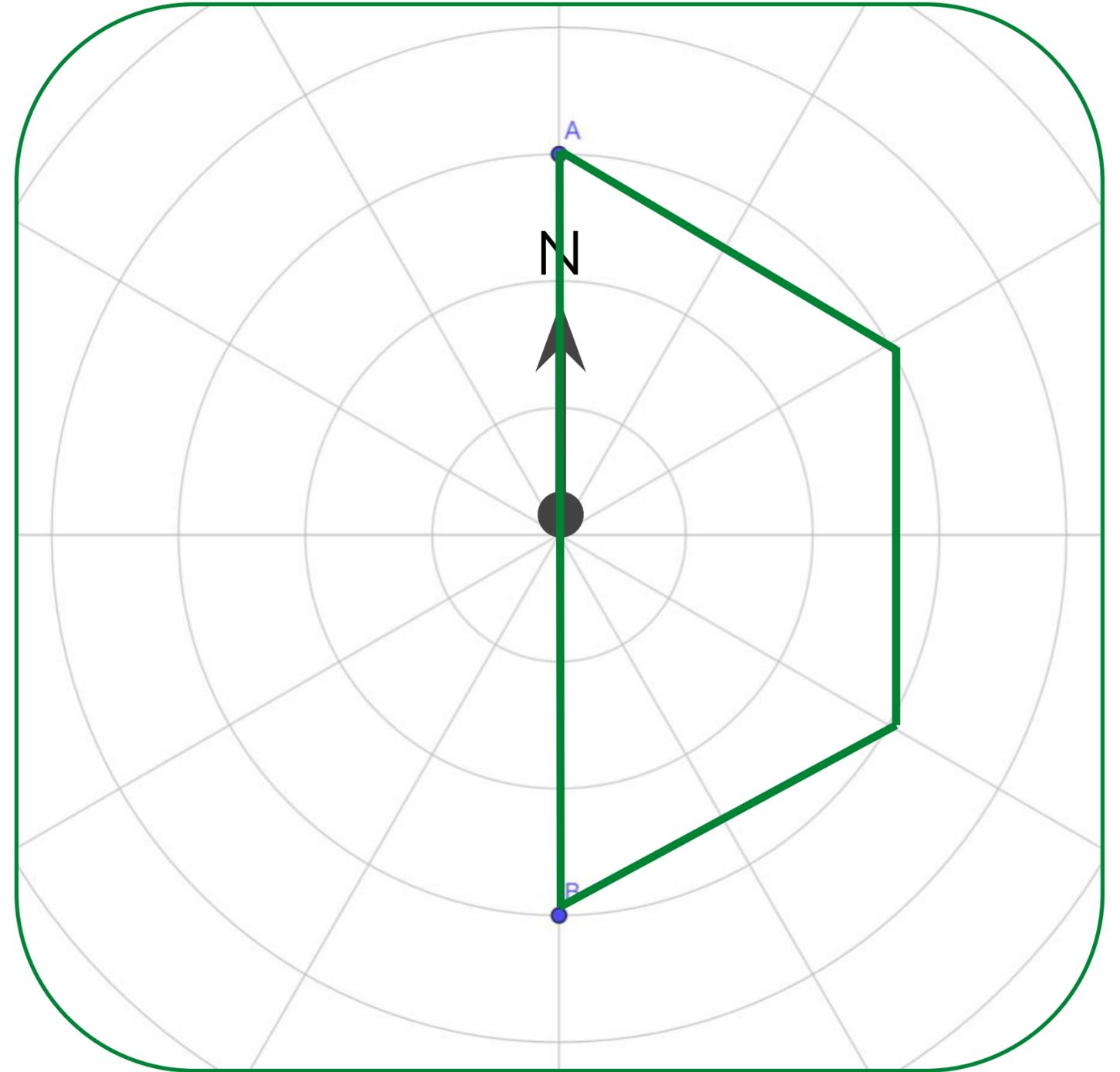
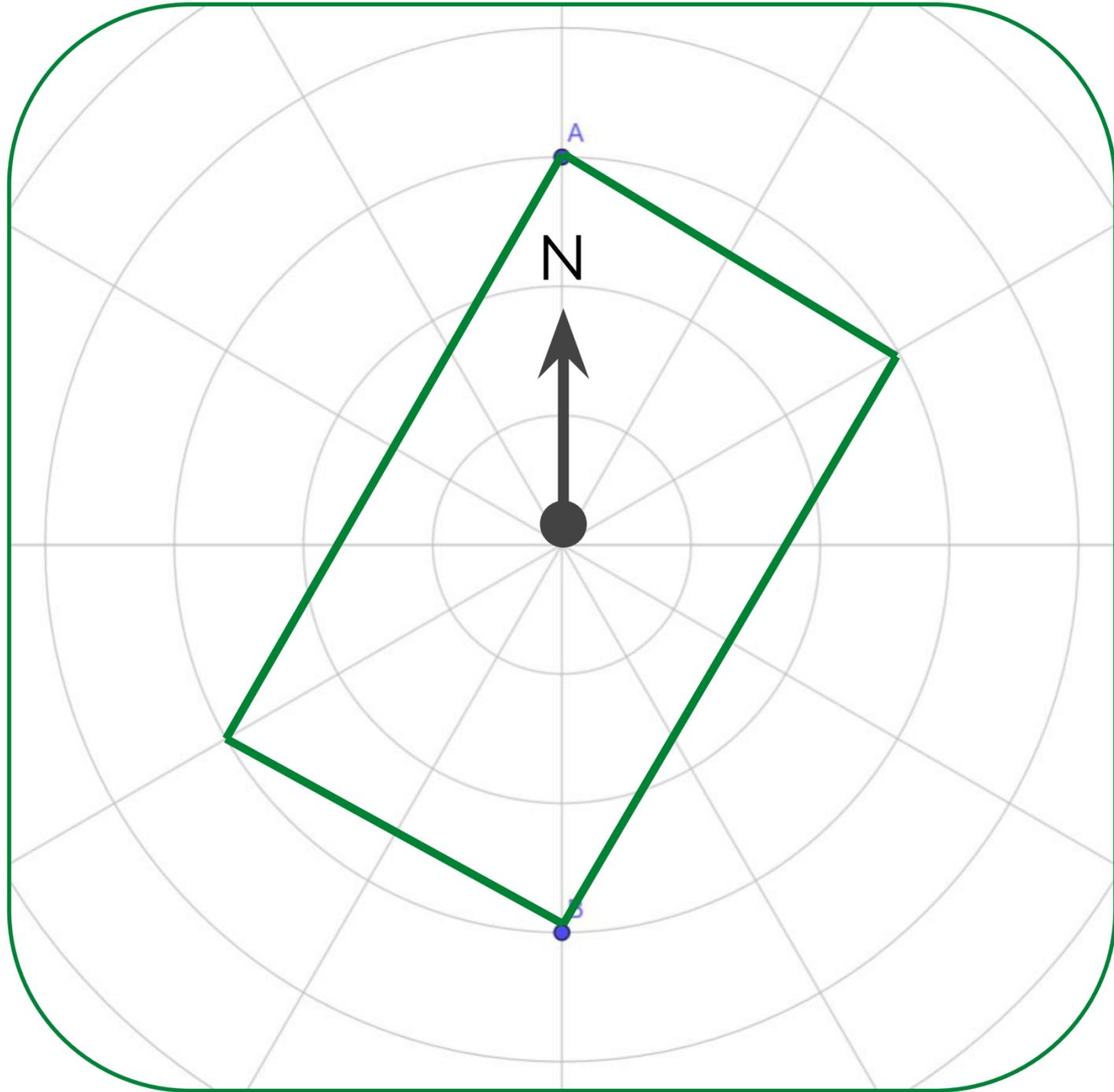
Answers



Answers



Answers



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