Vectors

Syllabus tracker Open it online

Name: _____

Date: _____

Tick one circle for each statement — on screen (click) or with a pen. Then try the quick checks: write your answer in the box, check it against the answers at the end, and tick “right” when you got it.

Column vectors

Adding, subtracting and multiplying by a number.

	Don't know	Shaky	Got it
I can add and subtract column vectors.	○	○	○
I can multiply a vector by a number.	○	○	○

Magnitude

The length of a vector.

	Don't know	Shaky	Got it
I can find the magnitude of a vector.	○	○	○

Position vectors

Vectors from the origin and the vector between two points.

	Don't know	Shaky	Got it
I can find the vector between two points.	○	○	○

Vectors in diagrams

Routes, ratios, midpoints, parallel vectors and collinear points.

	Don't know	Shaky	Got it
I can write a vector as a route through known vectors.	○	○	○
I can find the vector to the midpoint of a line.	○	○	○
I can recognise parallel vectors.	○	○	○

Quick checks

One quick question per statement. Answer in the box, then check the answers at the end.

1. a = (3, –2) and b = (–1, 5). Find a + 2b.

Answer: _____ ☐ I got it right

2. Find 3 × (–2, 4).

Answer: _____ ☐ I got it right

3. Find |(5, –12)|.

Answer: _____ ☐ I got it right

4. A is (2, 3) and B is (7, –1). Find the column vector AB.

Answer: _____ ☐ I got it right

5. OA = a and OB = b. Find AB.
A b – a **B** a – b **C** a + b **D** ½(a + b)

Answer: _____ I got it right

6. OA = a, OB = b and M is the midpoint of AB. Find OM.
A ½(a + b) **B** ½(b – a) **C** a + b **D** a + ½b

Answer: _____ I got it right

7. Which vector is parallel to 2a – 3b?
A –4a + 6b **B** 2a + 3b **C** 3a – 2b **D** 4a – 3b

Answer: _____ I got it right

Answers

Try every question first, then check.

1. (1, 8)
2. –6, 12
3. 13
4. 5, –4
5. A: b – a
6. A: ½(a + b)
7. A: –4a + 6b