# 3.17 Transformations: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

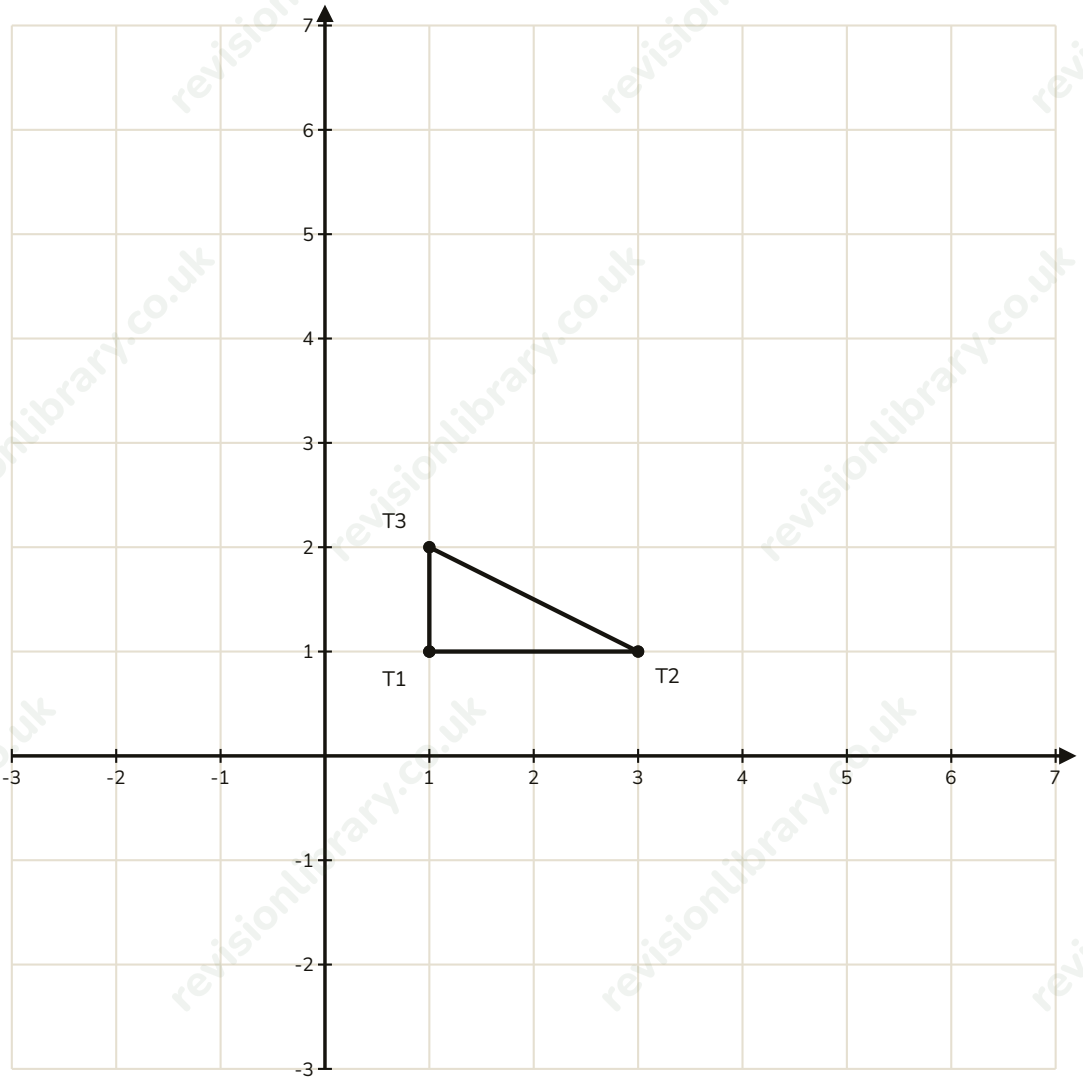
**Answer ALL questions. Show all your working.**

**1** Rotate the point B(3, 1) 90 degrees anticlockwise about the origin. Write down the new coordinates.

**(Total for Question 1 is 2 marks)**


© Revision Library | revisionlibrary.co.uk

**2** Enlarge triangle T with vertices (1, 1), (3, 1) and (1, 2) by a scale factor of 2 from the origin. Give the coordinates of the enlarged triangle's vertices.




**(Total for Question 2 is 3 marks)**


© Revision Library | revisionlibrary.co.uk

**3** Point A has coordinates (4, -5). Under a translation, A is mapped to A' (9, -10).
Point B has coordinates (4, 1). Work out the coordinates of B' after the same translation, and describe the translation as a column vector in the form (x, y).

**(Total for Question 3 is 3 marks)**


© Revision Library | revisionlibrary.co.uk

# Mark scheme · 3.17 Transformations: 10-minute Pack

## Question 1

| | |
|---|---|
| correct use of rotation rule (x, y) -> (-y, x) or equivalent | **M1** |
| (-1, 3) cao | **A1** |

**Answer: (-1, 3)**

## Question 2

| | |
|---|---|
| correct method: multiply each coordinate by 2 (apply scale factor to coordinates) | **M1** |
| show multiplication for at least one vertex or evidence applied correctly to all vertices, e.g. (1,1)->(2,2) and (3,1)->(6,2) | **M1** |
| (2, 2), (6, 2), (2, 4) cao | **A1** |

**Answer: (2, 2), (6, 2), (2, 4)**

## Question 3

| | |
|---|---|
| subtracts coordinates of A from A' | **M1** |
| vector (5, -5) | **A1** |
| B' (9, -4) | **B1** |

**Answer: B' (9, -4); vector (5, -5)**


© Revision Library | revisionlibrary.co.uk