

## UNIT 3 Graphs

## Mental Tests

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### M 3.1 Standard Route *(no calculator)*

*(Pupils will need a copy of coordinate grid, A)*

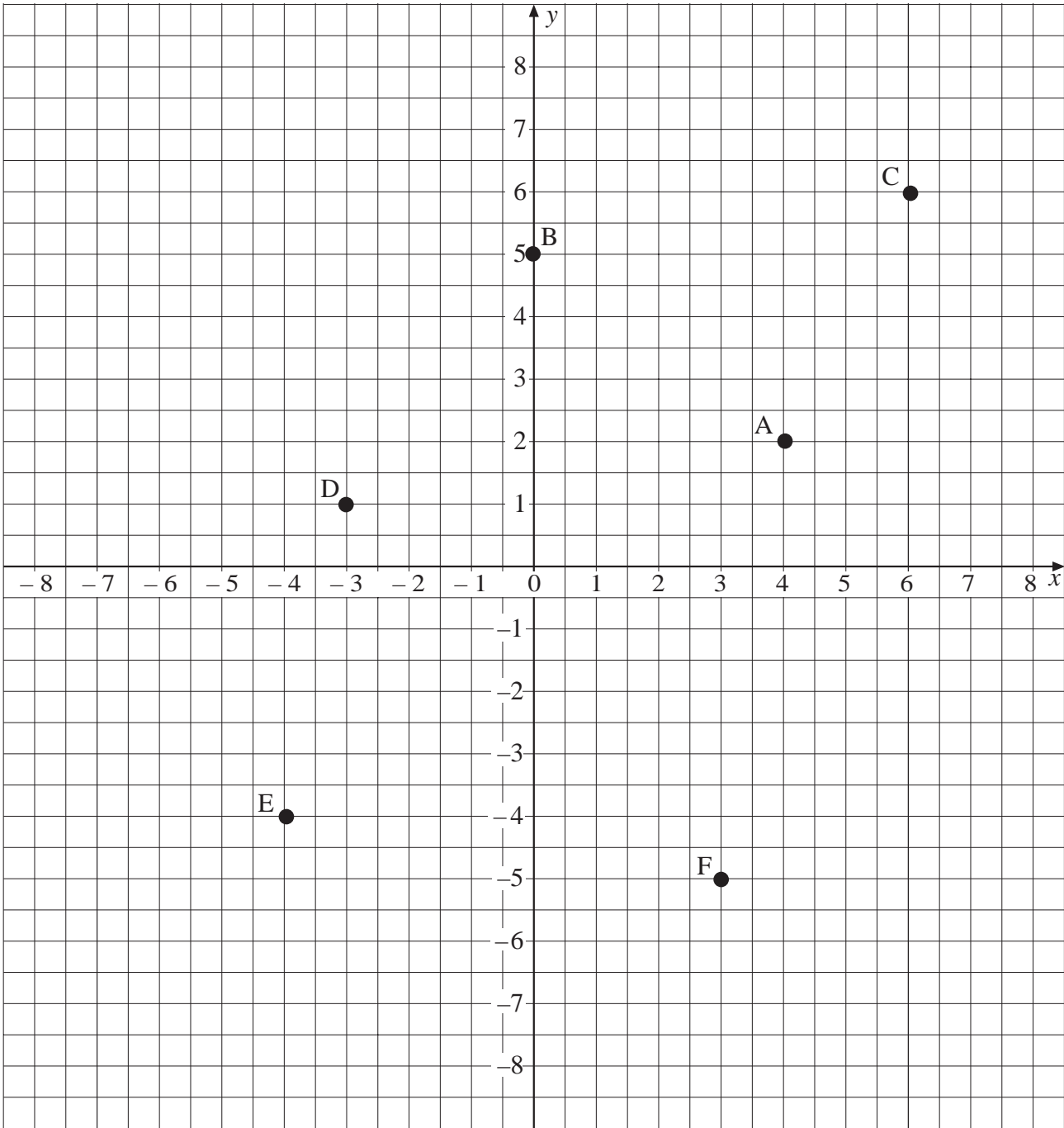
1. What are the coordinates of the points:  
(i) A, (4, 2)  
(ii) B, (0, 5)  
(iii) C ? (6, 6)
  
2. Write these numbers in order, smallest first:  
 $-5, 7, 0, -7, 3, -1$  ( $-7, -5, -1, 0, 3, 7$ )
  
3. What is the temperature  $5^{\circ}\text{C}$  cooler than  $-2^{\circ}\text{C}$ ? ( $-7^{\circ}\text{C}$ )
  
4. What is the temperature  $7^{\circ}\text{C}$  warmer than  $-3^{\circ}\text{C}$ ? ( $4^{\circ}\text{C}$ )
  
5. Write down *one* integer that satisfies  
 $-4 < \text{number} < -1$  ( $-2$  or  $-3$ )
  
6. What are the coordinates of the points:  
(i) D, ( $-3, 1$ )  
(ii) E, ( $-4, -4$ )  
(iii) F ? ( $3, -5$ )

UNIT 3   Graphs

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M 3.1   Standard Route

Coordinate Grid A



## UNIT 3 Graphs

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### M 3.2 Standard Route *(no calculator)*

*(Pupils will need a copy of coordinate grid, B)*

1. Write these numbers in order, smallest first:

0, -4, -7, 2, 5, -1

(-7, -4, -1, 0, 2, 5)

2. What is the temperature  $4^{\circ}\text{C}$  colder than  $-5^{\circ}\text{C}$ ?

( $-9^{\circ}\text{C}$ )

3. Write down all integers that satisfy

$-7 < \text{number} < -4$

(-6 and -5)

4. What are the coordinates of the points: (i) A,

(2, 5)

(ii) B,

(4, 0)

(iii) C,

(-2, -4)

(iv) D?

(0, -7)

5. Three corners of a rectangle are at (0, 0), (5, 0), (5, 2).

What are the coordinates of the fourth corner?

(0, 2)

6. Three corners of a square are (0, -2), (3, 0), (1, 3)

What are the coordinates of the fourth corner?

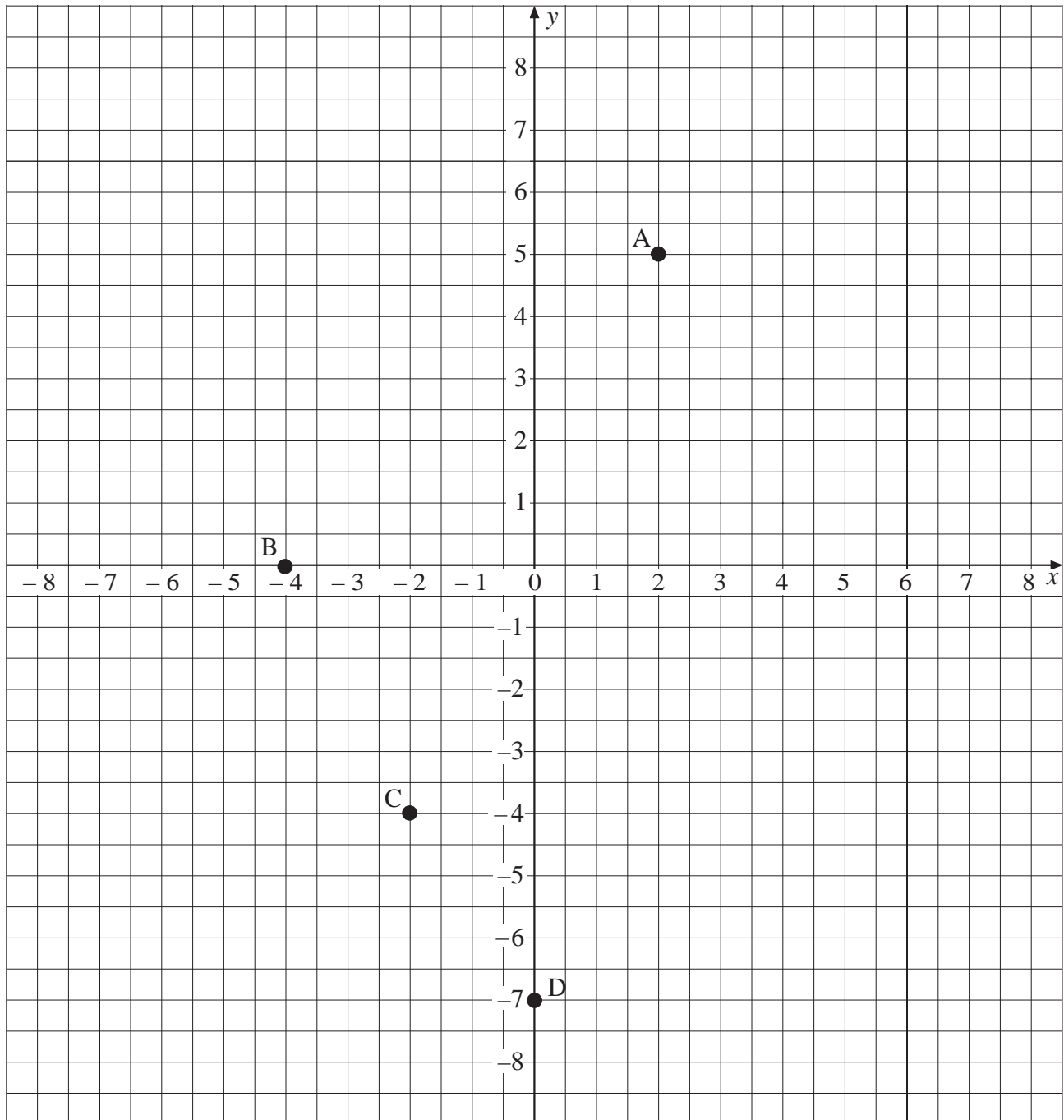
(-2, 1)

## UNIT 3 Graphs

## Mental Tests

### M 3.2 Academic Route

#### Coordinate Grid B



## UNIT 3 Graphs

## Mental Tests

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### M 3.3 Express Route *(no calculator)*

*(Pupils will need a copy of coordinate grid, C)*

1. What are the coordinates of the points:  
(i) A, (0, 7)  
(ii) B, (- 2, 1)  
(iii) C, (- 3, - 5)  
(iv) D ? (5, - 3)
  
2. Three corners of a rectangle are at  $(- 2, - 3)$ ,  $(4, - 3)$  and  $(4, 2)$   
What are the coordinates of the fourth corner? (- 2, 2)
  
3. A square has corners at points with coordinates  $(2, 3)$ ,  $(0, - 1)$  and  $(3, 0)$ .  
What are the coordinates of the fourth corner? (- 1, 2)
  
4. A square has corners at points with coordinates  $(- 2, - 2)$  and  $(- 2, - 5)$ .  
What are the possible pairs of coordinates of the other two points?  $(- 5, - 5)$  and  $(- 5, - 2)$   
or  $(1, - 5)$  and  $(1, - 2)$

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M 3.3   Express Route

Coordinate Grid C

