

UNIT 3 Graphs

Mental Tests

M 3.1 Standard Route (*no calculator*)*(Pupils will need a copy of coordinate grid, A)*

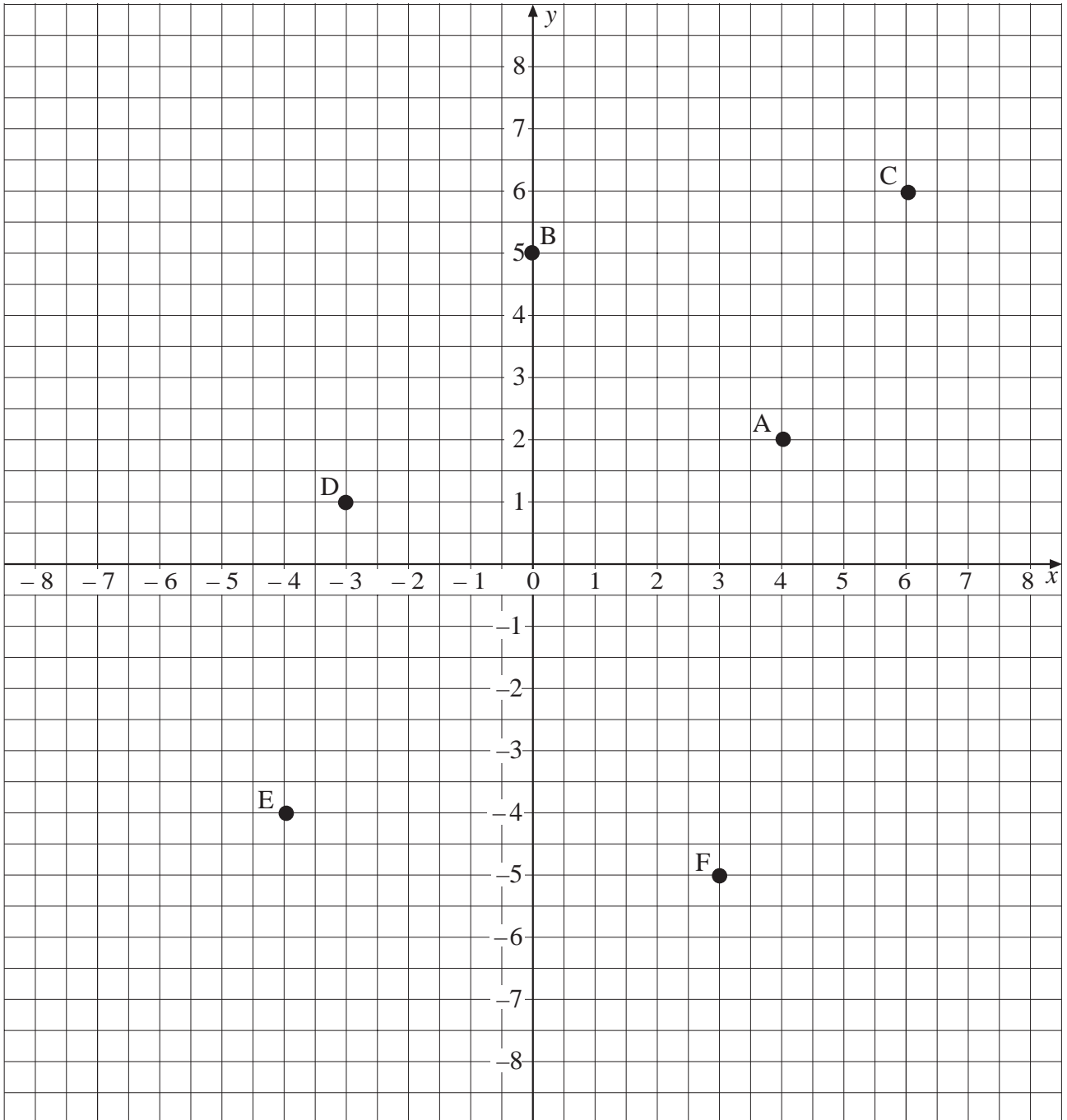
- What are the coordinates of the points: (i) A, (4, 2)
(ii) B, (0, 5)
(iii) C ? (6, 6)
- Write these numbers in order, smallest first:
-5, 7, 0, -7, 3, -1 (-7, -5, -1, 0, 3, 7)
- What is the temperature 5 °C cooler than -2 °C? (-7 °C)
- What is the temperature 7 °C warmer than -3 °C ? (4 °C)
- Write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

UNIT 3 Graphs

Mental Tests

M 3.1 Standard Route

Coordinate Grid A



UNIT 3 Graphs

Mental Tests

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°C colder than -5°C ?

 (-9°C)

3. Write down all integers that satisfy

 $-7 < \text{number} < -4$ $(-6 \text{ and } -5)$

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?

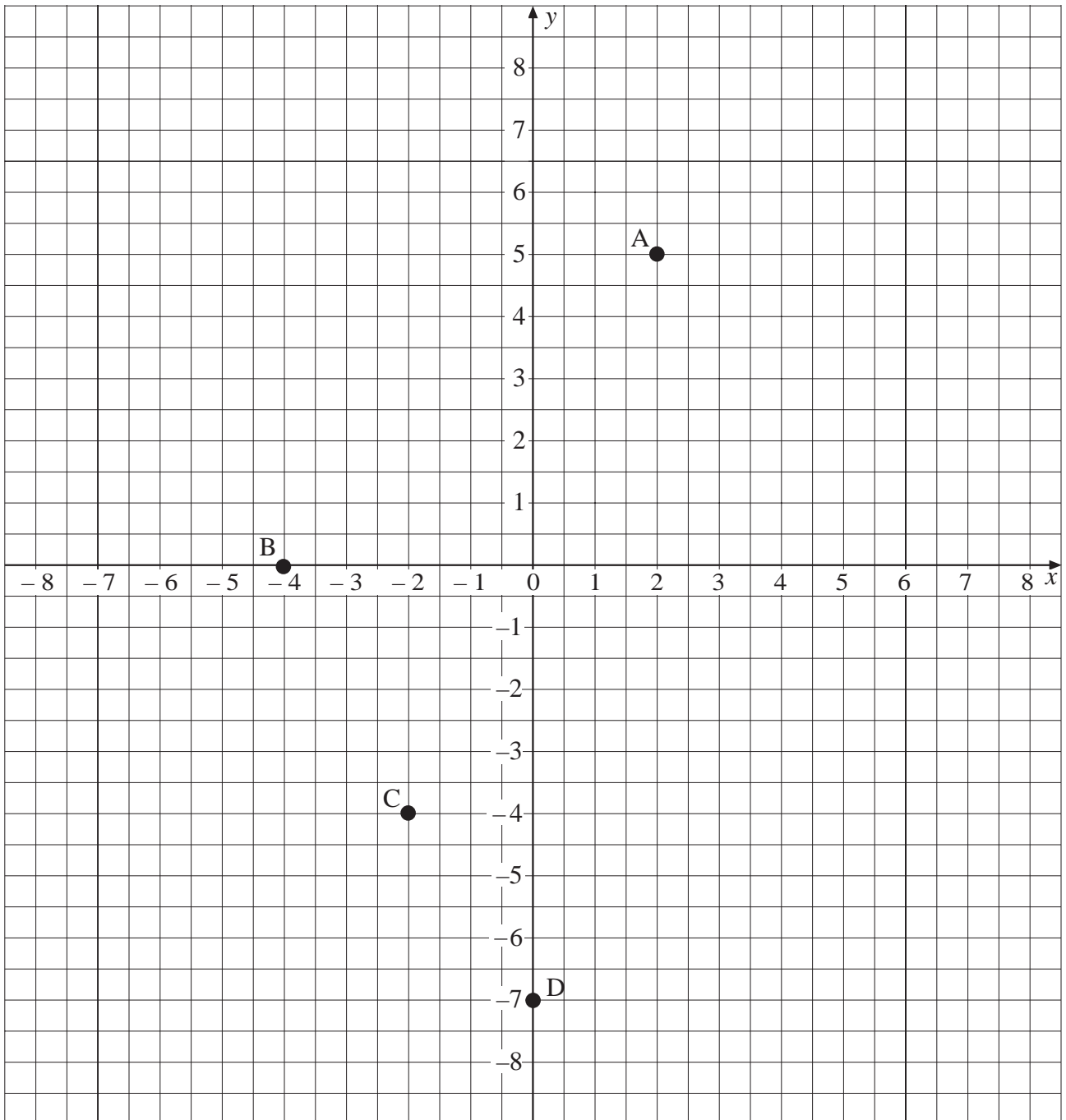
 $(-2, 1)$

UNIT 3 Graphs

Mental Tests

M 3.2 Academic Route

Coordinate Grid B



UNIT 3 Graphs

Mental Tests

M 3.3 Express Route *(no calculator)*

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

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

UNIT 3 Graphs

Mental Tests

M 3.3 Express Route

Coordinate Grid C

