

Grade 6 - The Coordinate Plane and Polygons - Test Answer Key

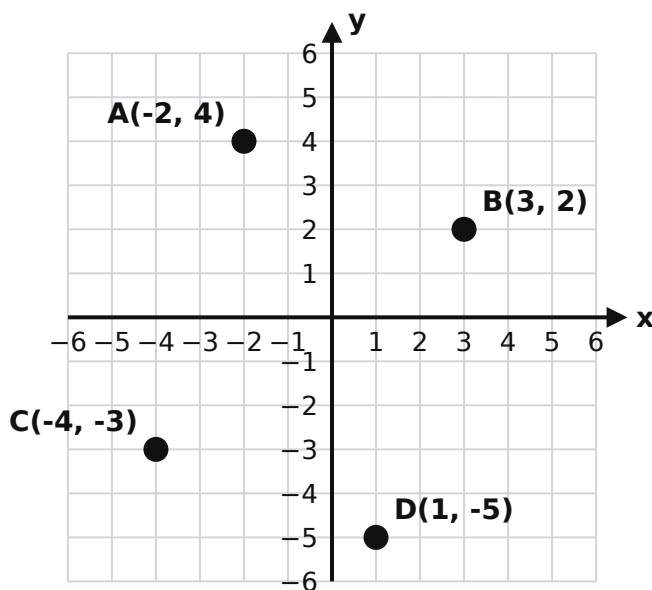
Common Core 6.NS.C.6b, 6.NS.C.6c, 6.NS.C.8, 6.G.A.3 · maths-pdf.fr/en/

Use this key to score the coordinate plane test out of 20 points. Each solution is fully worked, and the scoring line explains how to award each point and partial credit.

Grade 6 · Common Core State Standards: **6.NS.C.6b**, **6.NS.C.6c**, **6.NS.C.8**, **6.G.A.3**

Question 1 - Name the points [2 pts]

$A(-2, 4)$: Quadrant II. $B(3, 2)$: Quadrant I. $C(-4, -3)$: Quadrant III. $D(1, -5)$: Quadrant IV.

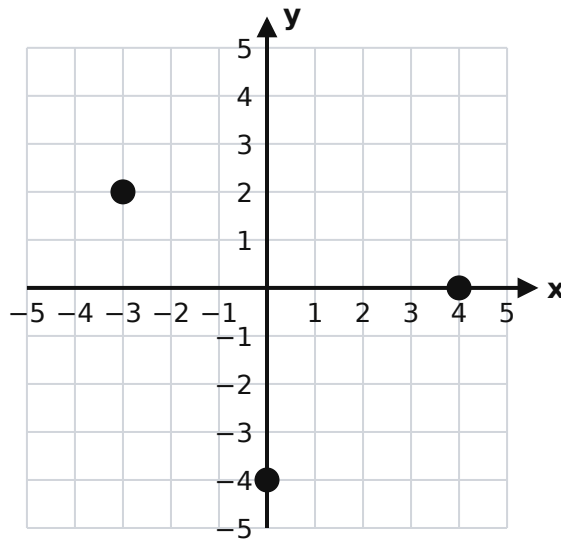


Labeled points.

Scoring: 1 point for all four ordered pairs; 1 point for all four quadrants (give half credit for two correct).

Question 2 - Plot points [2 pts]

$(-3, 2)$ is Quadrant II; $(0, -4)$ is on the y-axis; $(4, 0)$ is on the x-axis.



Plotted points.

Scoring: 1 point for two correct points; 2 points for all three.

Question 3 - Reflections [2 pts]

(a) $(5,3)$. (b) $(2,-7)$.

Scoring: 1 point for each reflection.

Question 4 - Distance [2 pts]

(a) $4+3=7$. (b) $5+4=9$.

Scoring: 1 point for each distance.

Question 5 - Rectangle [2 pts]

Length: $5+3=8$. Width: $2+1=3$.

Perimeter $2(8+3)=22$; area $8 \times 3 = 24$.

Scoring: 1 point for the side lengths; 1 point for perimeter and area.

Question 6 - Missing vertex [2 pts]

The fourth vertex is $(2, -2)$.

Scoring: 1 point for using the matching x and y values; 1 point for the correct vertex.

Question 7 - Triangle area [3 pts]

Base: $3+3=6$. Height: $5-1=4$.

Area $\frac{1}{2} \times 6 \times 4 = 12$.

Scoring: 1 point for the base; 1 point for the height; 1 point for the area.

Question 8 - Map problem [3 pts]

AB: $4+3=7$ miles.

BC: $2+5=7$ miles.

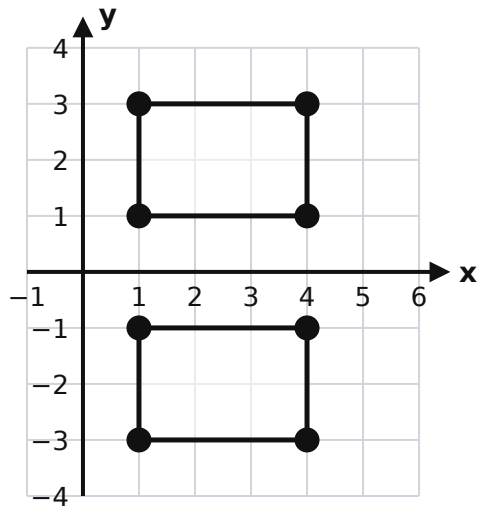
Trip: $7+7=14$ miles.

Scoring: 1 point for AB; 1 point for BC; 1 point for the total.

Question 9 - Reflect a polygon [2 pts]

Change the sign of each y-coordinate: $(1, -1)$, $(4, -1)$, $(4, -3)$, $(1, -3)$.

The new rectangle is in Quadrant IV.



The rectangle and its reflection.

Scoring: 1 point for the vertices; 1 point for the quadrant.

Total
20 points