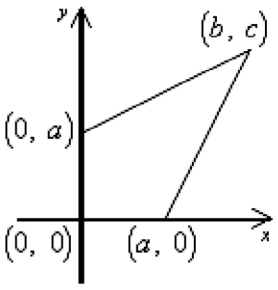
Name: _____ **Class:** _____ **Date:** _____ **ID: A**

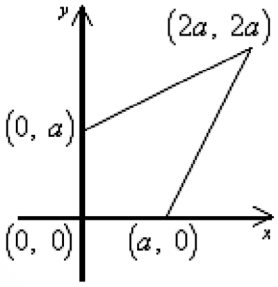
Coordinate Proofs

____ 1. Which diagram shows the most useful positioning and accurate labeling of a kite in the coordinate plane?

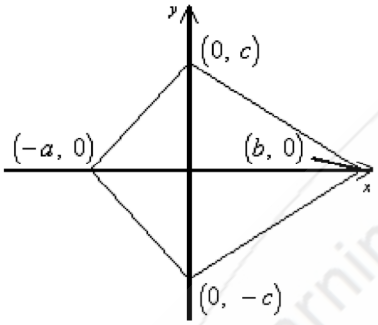
A.



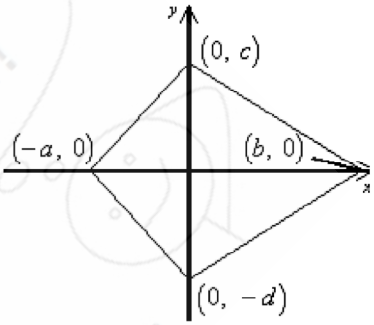
C.



B.

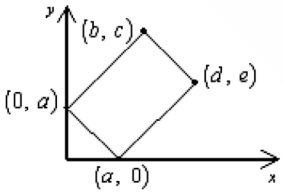


D.

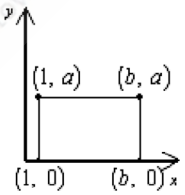


____ 2. Which diagram shows the most useful positioning of a rectangle in the first quadrant of a coordinate plane?

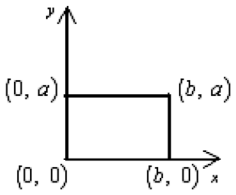
A.



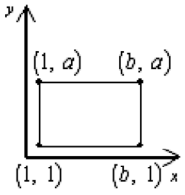
C.



B.



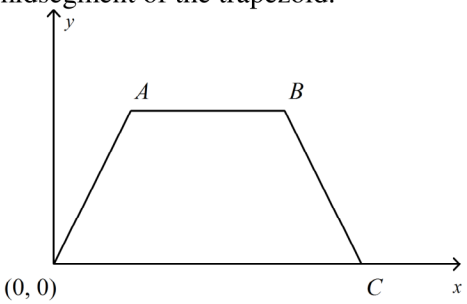
D.



____ 3. In the coordinate plane, three vertices of rectangle $HIJK$ are $H(0, 0)$, $I(0, d)$, and $K(e, 0)$. What are the coordinates of point J?

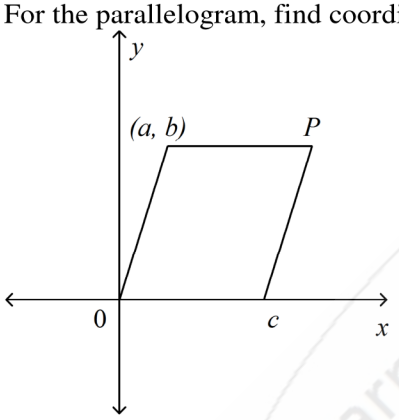
A. (d, e) B. (e, d) C. $\left(\frac{d}{2}, \frac{e}{2}\right)$ D. $(2e, 2d)$

____ 4. The vertices of the trapezoid are the origin along with $A(4u, 4v)$, $B(4w, 4v)$, and $C(4x, 0)$. Find the midpoint of the midsegment of the trapezoid.



A. $(u + w + x, v)$
B. $(2u + 2x, 2v)$
C. $(2w, 2v)$
D. $(u + w + x, 2v)$

____ 5. For the parallelogram, find coordinates for P without using any new variables.



A. (c, a)
B. $(a - c, c)$
C. (c, b)
D. $(a + c, b)$

6. Show how to place a rhombus in the coordinate plane so that its diagonals lie along the axes. Label the vertices using as few variables as possible.

Coordinate Proofs
Answer Section

1. B
2. B
3. B
4. D
5. D
6. Answers may vary. Sample: