Finding Coordinates

1. Determine the coordinates of all the following plotted points and express them as ordered pairs.

![Graph showing points A, B, C, and D with coordinates to be determined.](image)
2. Suppose the following coordinate plane represents a map of a school building.

a) Thomas is in the room located at (-5, 3). What room are they in?

b) Thomas’ next class is 3 units to the right and 2 units down on the map from where they are now. In what room is their next class? Find the ordered pair that represents the location of that room.

c) Thomas eats lunch in the cafeteria. Provide the directions (i.e. number of units up/down/left/right) to guide them from their current location (from part b) to the cafeteria room.
Plotting Points

1. Plot and label the following points on the Cartesian/xy-plane:

a) \( A(-3, 5) \)  

b) \( B(6, -7) \)  
c) \( C(5, 0) \)  
d) \( D(-5, -2) \)  
e) \( E(1, 3) \)  
f) \( F(0, -4) \)  

2. The sides of the rectangle ABCD are parallel to the coordinate axes. If the coordinates of the vertices B and D are \((3, 7)\) and \((6, 2)\) respectively, find the coordinates of the vertices A and C.

Quadrants & Axes

1. In which quadrant(s) do the following points lie?

a) \( (2, -7) \)  
b) \( (-3, 2) \)  
c) \( (\sqrt{5} + 3, 2) \)  
d) \( (\sqrt{2} - 3, -1) \)  
e) \( (x, 5) \)  
f) \( (-4, y) \)  

2. On which axes (x-axis or y-axis) do the following points lie?

a) \( (4, 0) \)  
b) \( (0, -6) \)  
c) \( (0, 3) \)  
d) \( (-5, 0) \)
ANSWER KEY

Finding Coordinates

1. A) (3, 0.5)  
   B) (−2, 7)  
   C) (1, −6)  
   D) (−5.5, −2)

2. a) English  
   b) Math; (−2, 1)  
   c) 1 unit down and 4 units right or 4 units right and 1 unit down

Plotting Points

1.
2. A(6,7), C(3,2) or A(3,2), C(2,3)

Quadrants & Axes

1. a) quadrant IV
   b) quadrant II
   c) quadrant I
   d) quadrant III
   e) quadrant I if \( x > 0 \); quadrant II if \( x < 0 \)
   f) quadrant II if \( y > 0 \); quadrant III if \( y < 0 \)

2. a) x-axis
   b) y-axis
   c) y-axis
   d) x-axis