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## Dimensions of the Court

## GRADES 6-8

## Explore

Use the coordinate plane system to answer/plot the below questions/coordinates.

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# Dimensions of the Court 

## GRADES 6-8

## Explore

1. Plot the points $(-13,9)$ and $(-13,-9)$. Connect the points to draw one of the baselines.
2. Plot the points $(13,9)$ and $(13,-9)$. Connect the points to draw the other baseline.
3. Connect the points $(-13,9)$ and $(13,9)$ to draw the sideline.
4. Connect the points $(-13,-9)$ and $(13,-9)$ to draw the sideline
5. Plot the points $(-13,10)$ and $(13,10)$. Draw a rectangle connecting $(-13,9),(-13,10)$, $(13,10)$, and $(13,9)$ to draw the additional sideline needed for Doubles Tennis.
6. Plot the points $(-13,-10)$ and $(13,-10)$. Draw a rectangle connecting $(-13,-9),(-13$, $-10),(13,-10)$, and $(13,-9)$ to draw the additional sideline needed for Doubles Tennis.
7. Plot the points $(0,-10)$ and $(0,10)$. Connect the points to draw the net.
8. Plot the points $(-7,0),(-7,9),(0,9)$, and $(0,0)$. Connect the points to draw a rectangular service box.
9. Plot the points $(-7,0),(-7,-9),(0,-9)$, and $(0,0)$. Connect the points to draw a rectangular service box.
10. Plot the points $(7,0),(7,9),(0,9)$, and $(0,0)$. Connect the points to draw a rectangular service box.
11. Plot the points $(7,0),(7,-9),(0,-9)$, and $(0,0)$. Connect the points to draw a rectangular service box.

# Dimensions of the Court 

GRADES 6-8
Explore
add drawing of court

# Dimensions of the Court 

## GRADES 6-8

## Elaborate

## 7th Grade Standard

Determine the distance the player and ball travels.

1. Player $A$ hits the ball from $(-15,-6)$ to $(-15,8)$. How far did the ball travel? answer here
2. Player C moves from $(14,7)$ to $(14,-3)$ to make a play on the ball. How far did player C move?
answer here
3. In a doubles match, Player $A$ is standing at $(-14,-4)$ and Player $B$ is standing at $(-7,-4)$. If the ball is hit to $(0,-4)$, which player is the closest to hit the ball? answer here
$\qquad$

# Dimensions of the Court 

## GRADES 6-8

## Elaborate

## 8th Grade Standard

Using the Pythagorean Theorem, determine the distance the player and ball travels.

1. Player A serves from $(-14,-8)$ to Player $C$ at $(16,6)$. How far did the ball travel? answer here
2. Player $C$ returns the ball from $(16,6)$ to $(-15,2)$. How far did the ball travel? answer here
3. Player A scores a point by returning the ball from $(-15,2)$ to $(5,-6)$. How far did the ball travel? answer here

## Evaluate

Create your own question, modeling a point in tennis similar to those calculated in Elaborate.

answer here

