1.3 Use Midpoint and Distance Formulas - Day 4

\[ \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \]
Review: Simplify This Radical:

\[ \sqrt{108} \]

First 10 Perfect Squares

1\(^2\) = 1  \quad 2\(^2\) = 4
3\(^2\) = 9  \quad 4\(^2\) = 16
5\(^2\) = 25  \quad 6\(^2\) = 36
7\(^2\) = 49  \quad 8\(^2\) = 64
9\(^2\) = 81  \quad 10\(^2\) = 100

ANSWER!
**Distance Formula:** If \(A(x,y)\) and \(B(x_2,y_2)\) are on a coordinate plane, then the distance between them is:

\[
\sqrt{(x_2-x_1)^2 + (y_2-y_1)^2}
\]

\[a^2 + b^2 = c^2\]

\[c = \sqrt{a^2 + b^2}\]
**Distance Formula:** If $A(x,y)$ and $B(x_2,y_2)$ are on a coordinate plane, then the distance between them is:

$$\sqrt{(x_2-x_1)^2 + (y_2-y_1)^2}$$

![Diagram](image)

$$a^2 + b^2 = c^2$$

$$c = \sqrt{a^2 + b^2}$$
Distance Formula: If A(x, y) and B(x2, y2) are on a coordinate plane, then the distance between them is:

Kenyon Distance Formula:

$$\sqrt{\triangle x^2 + \triangle y^2}$$

Take the square root of the change in $x^2$ plus the change in $y^2$
Ex: What is the length of $\overline{PQ}$?

Distance Formula:

$$\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$$

ANSWER!
Ex: What is the length of $\overline{DR}$?

Distance Formula:
$$\sqrt{(x_2-x_1)^2 + (y_2-y_1)^2}$$

ANSWER!
Ex: Find the distance between these points: 
(8,15) and (-7,23)

ANSWER!
Assignment:
P20: 31-45, but skip 41,42