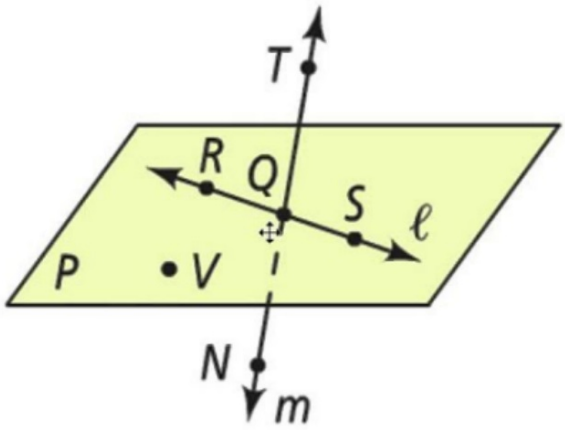
1.) **Name this plane two different ways.**
Where do lines RS and TN intersect?
Is line TN coplanar with line ℓ ?



Are Points T Q and V collinear?
Name Three points that are collinear.

2.) **Draw a line segment where Q is between Points L and J on a line segment where all points are collinear.**

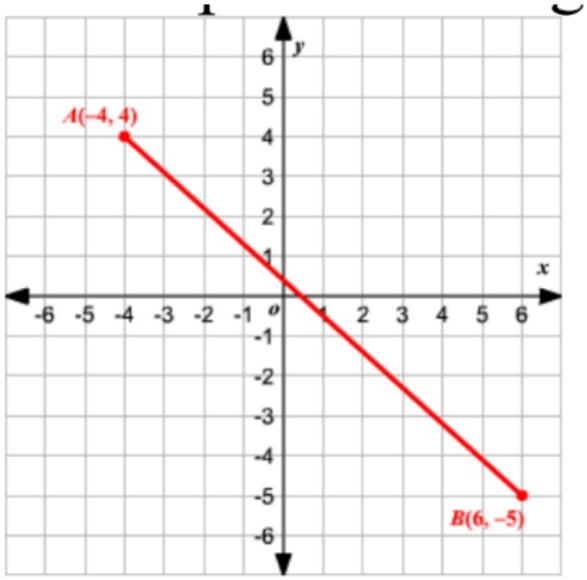
Label the following lengths on your line segment:

LQ = x+2, QJ = 3x-9, LJ = 6x-21

Solve for all the lengths (LQ, QJ, and LJ)

#3

Find the coordinates of the midpoint of $\overline{AB}$.



Find the distance of AB.

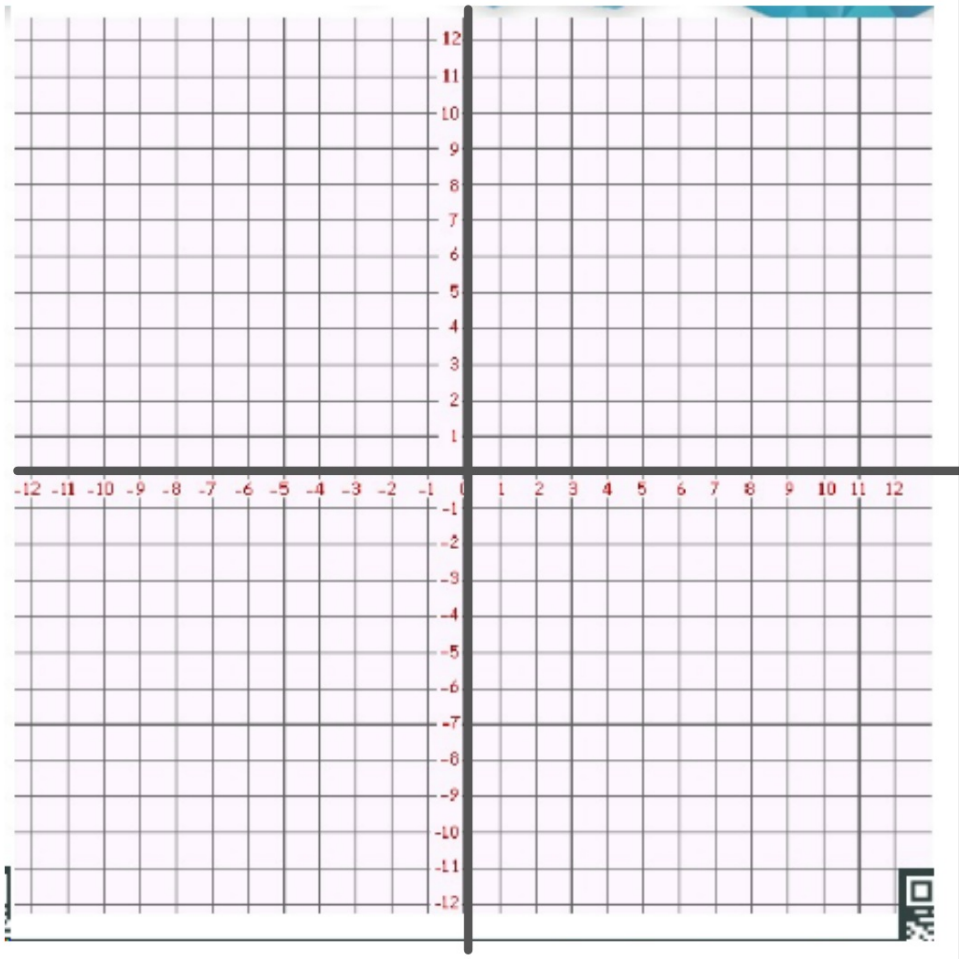
THE DISTANCE FORMULA

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

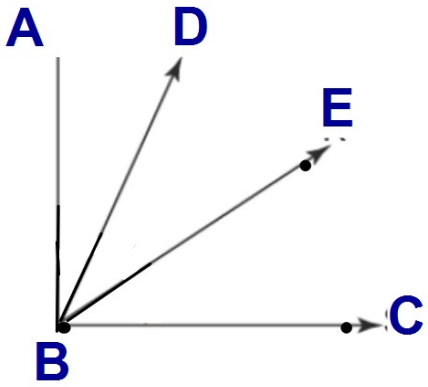
$$m = \left(\frac{x_2 + x_1}{2}, \frac{y_2 + y_1}{2}\right)$$

Find the coordinates of Q if $R(6, -1)$ is the midpoint of $\overline{QS}$ and S has coordinates (12, 4). Use the midpoint formula and graph to prove.

#4



5.)



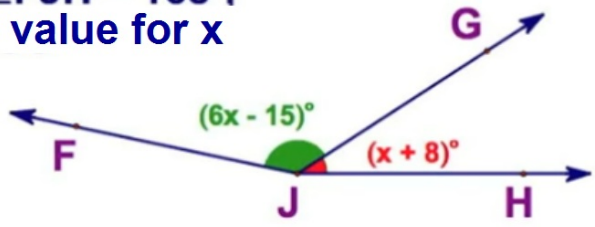
Find the measure of angle ABD if you know that m<ABE=52, m<DEC =75, m<EBC = 30

6.) **Given:** $4(5x+7)-3x=12x-27$

Prove: $x=-11$

Statements	Reasons
1. $4(5x+7)-3x=12x-27$	1.
2. $20x+28-3x=12x-27$	2.
3.	3. Combine like terms
4.	4. Subtraction Property
5.	5.
6. $x=-11$	6.

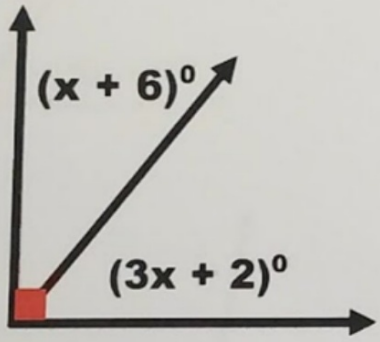
7.) Given m∠FJH = 168°.
Prove the value for x

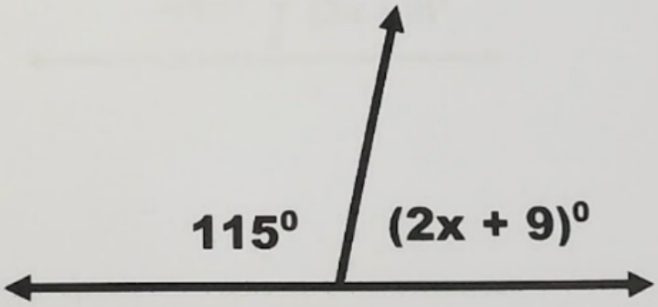


Statements	Reasons
m<FJH=168	
m∠FJG + m∠GJH = m∠FJH	
(6x - 15) + (x + 8) = 168	
7x - 7 = 168	
7x = 175	
x = 25	

#8

COMPLEMENTARY AND SUPPLEMENTARY ANGLES





Complementary
***When the sum of two angles add up to 90 degrees**

Supplementary
***When the sum of two angles add up to 180 degrees**

Reminders:

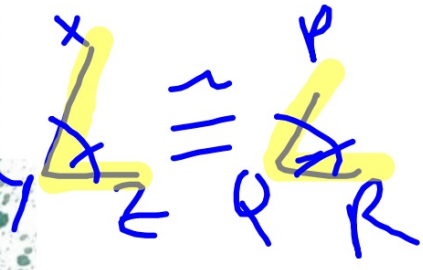
Angle **measures** are **numbers** and can be **equal**.

$m\angle 1 = m\angle 4$

What degrees?

Angles are **figures** and can be **congruent**.

$\angle XYZ \cong \angle PQR$

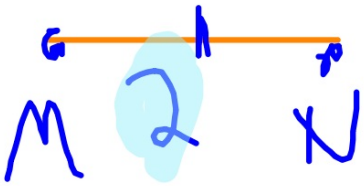


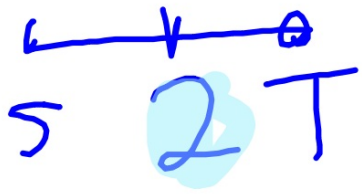
Segment **lengths** are **numbers** and can be **equal**.

$MN = ST$

Segments are **figures** and can be **congruent**.

$\overline{GH} \cong \overline{CD}$





***Know what the congruent markings mean.**

Vocabulary to know *study module 1 & 2:

Valid (true)
Counterexample (non-example)
Inverse (opposite)
Hypothesis (beginning)
Conclusion (ending)
linear pair (line - 180 degrees -supplementary)
adjacent (angles next to each other *any degrees)
right angles/perpendicular (90 degrees)
vertical angles
collinear (same line)
coplaner (same plane)
congruent (equal)
bisector (cuts in half - congruent parts of a line segment/angle) *Midpoint/Angle Bisector
Know your properties!

*STUDY FROM CLASS WEBSITE, TEAMS - CLASS NOTEBOOK VOCAB/NOTES CONTENT LIBRARY