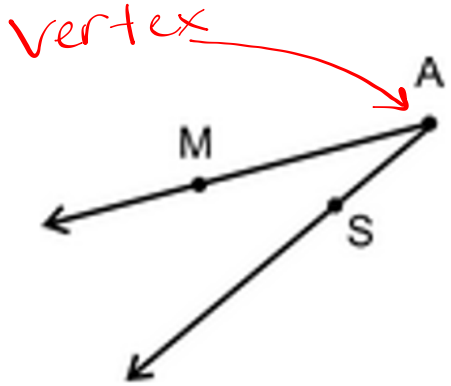
Learning Card # _____ | Name:



If an angle sits alone, you can name it using only its vertex.

∠A

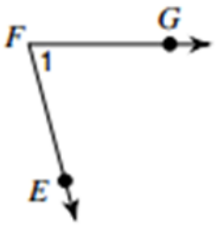
If an angle lies with other angles, you should name it using 3 *letters, with the* Vertex *Point being the middle letter*

∠MAS ∠SAM

Practice:

Name the angle in four ways:

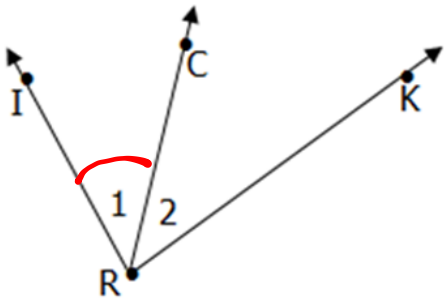
∠F
∠EFG
∠GFE
∠1



Practice:

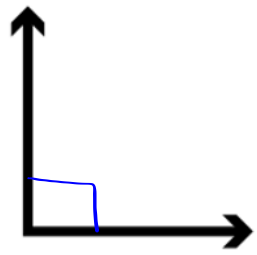
Name angle 1 as many ways as possible:

∠IRC
∠CRI
∠1



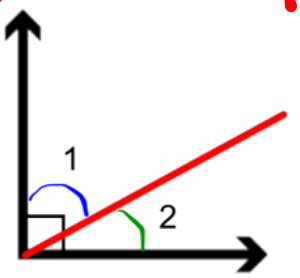
Naming Angles

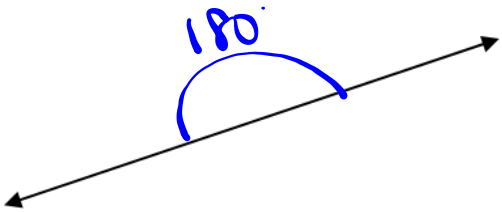
Learning Card # _____	Name:



Right angles measure exactly 90°

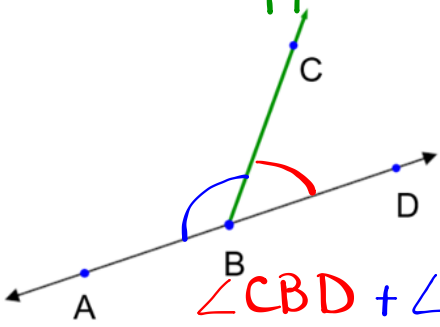
2 or more angles that make up a right angle are called complementary





Straight angles measure exactly 180°

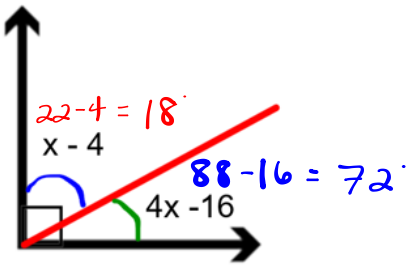
2 or more angles that make up a straight angle are called supplementary



Right Angles and Straight Angles

Learning Card # _____	Name:

Complementary Angles add up to 90°



Set-Up Equation: $4x-16 + x-4 = 90$

Solve:

$5x - 20 = 90$

$+20 \quad +20$

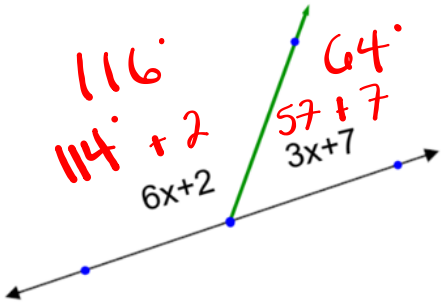
$\frac{5x}{5} = \frac{110}{5}$

$x = 22$

Ex 1. The complement of 23° is 67°

Ex 2. The complement of 72° is 18°

Supplementary Angles add up to 180°



Set-Up Equation: $6x+2+3x+7 = 180$

Solve:

$9x + 9 = 180$

$-9 \quad -9$

$9x = 171$

$x = 19$

Ex 1. The supplement of 145° is 35°

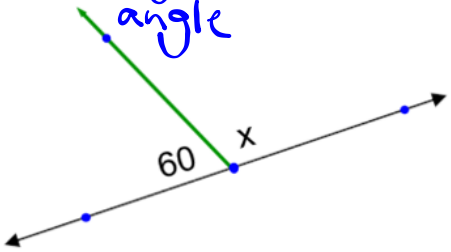
Ex 2. The supplement of 8° is 172°

Complementary and Supplementary Angles

Learning Card # _____ Name:

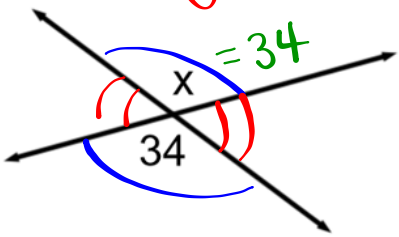
Linear Pair's are very similar to: supplementary angles

They make up a straight angle and equal 180° degrees.



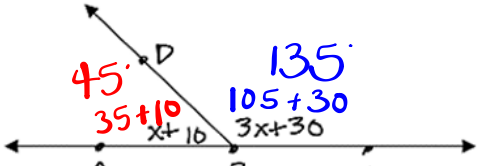
Vertical Angles are angles created by intersecting lines

Vertical angles are congruent



Practice:

Set up the linear pair and solve



$x+10+3x+30=180$

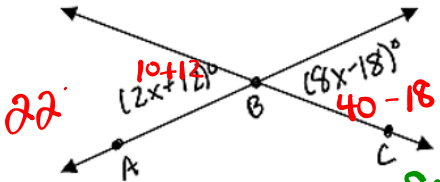
$4x+40=180$

$4x=140$

$x=35°$

Practice:

Set up the vertical angles and solve



$2x+12=8x-18$

$-2x \quad +18 \quad -2x \quad +18$

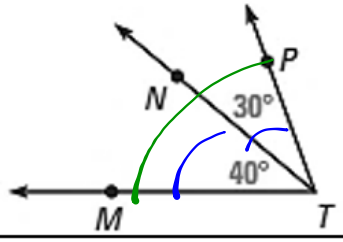
$30=6x$ $x=5$

Linear Pairs and Vertical Angles

Learning Card # _____	Name:

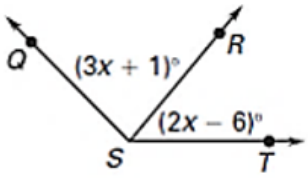
$\angle PTN + \angle NTM = \angle PTM$

$30 + 40 = 70$



$\angle QSR + \angle RST = \angle QST$

$3x+1 + 2x-6 = 5x-5$



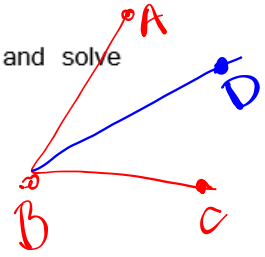
Practice:

Draw and solve

$\angle ABC = 100°$

$\angle ABD = 3x - 5$

$\angle DBC = 5x + 9$



$3x-5 + 5x+9 = 100$

$8x+4 = 100$

$8x = 96$

$x = 12$

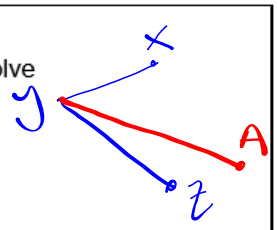
Practice:

Draw and solve

$\angle XYZ = 136°$

$\angle XYA = 4x + 10$

$\angle AYZ = -35 - 3x$



$4x+10 -35-3x = 136$

$x - 25 = 136$

$x = 161$

Angle Addition