

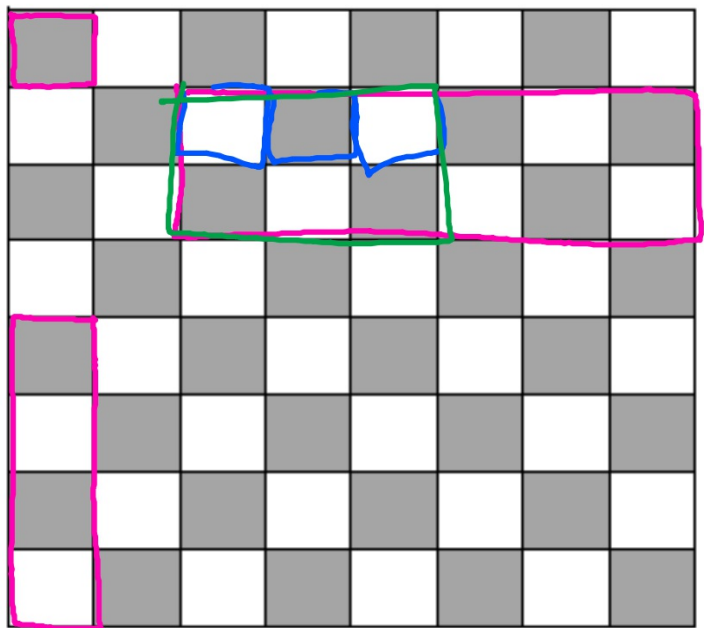
March 25, 2015

Starter

1st
2nd

How many
rectangles are in
the 8x8 chess
board?

Remember that
squares are
rectangles!



Gothic

3/25 Complementary / Supplementary Angles

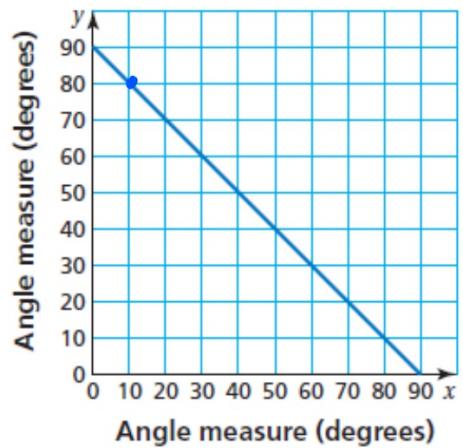
- a. The graph represents the measures of *complementary angles*. Use the graph to complete the table.

x	10	20°	25	30°	45°	50	75°
y	+80°	+70	+65°	60°	45	40°	15

Handwritten notes: 20, 90, 90 (under the y-values 80, 70, 65)

- b. How do you know when two angles are complementary? Explain.

Sum of the L's = 90



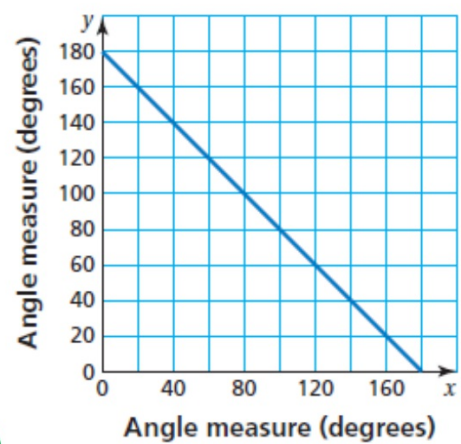
- c. The graph represents the measures of *supplementary angles*. Use the graph to complete the table.

x	20°	30	60°	90°	130	140°	150
y	160	150°	120	90°	50°	40	30°

+180

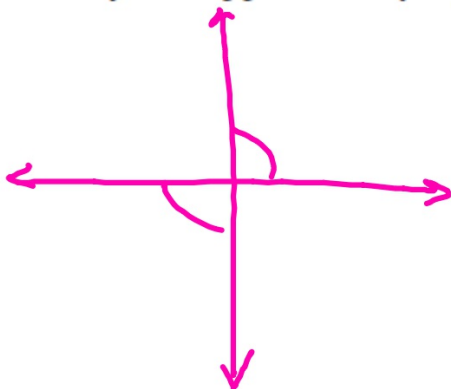
- d. How do you know when two angles are supplementary? Explain.

sum of the L's = 180

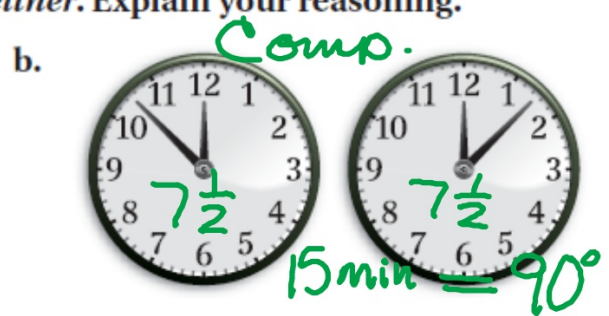
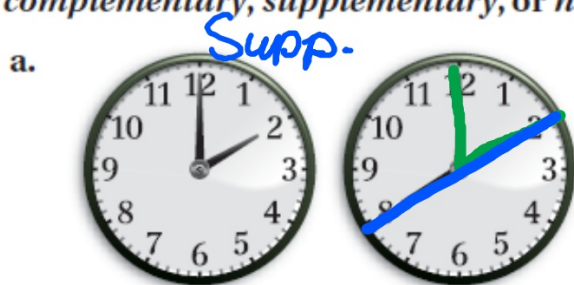


Work with a partner. Copy and complete each sentence with *always*, *sometimes*, or *never*.

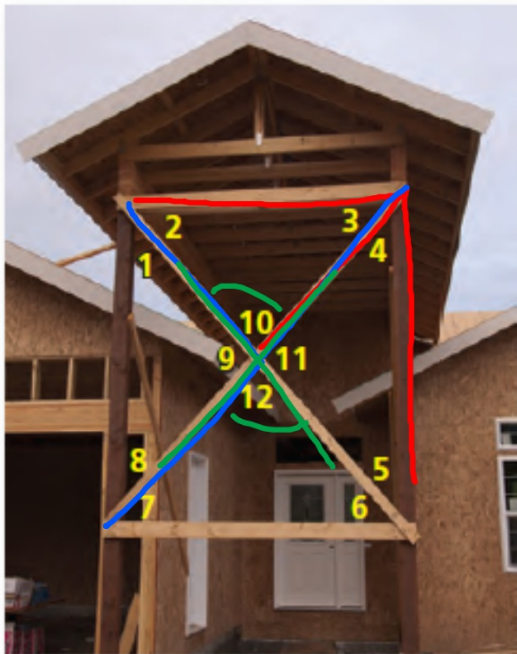
- If x and y are complementary angles, then both x and y are always acute.
- If x and y are supplementary angles, then x is Sometimes acute.
- If x is a right angle, then x is never acute.
- If x and y are complementary angles, then x and y are Sometimes adjacent.
- If x and y are supplementary angles, then x and y are Sometimes vertical.



Work with a partner. Tell whether the two angles shown on the clocks are complementary, supplementary, or neither. Explain your reasoning.



Name four pairs of complementary angles and four pairs of supplementary angles.



$$\begin{array}{ll} \angle 3 + \angle 4 & \angle 9 + \angle 10 \\ \angle 5 + \angle 6 & \angle 11 + \angle 12 \\ \angle 7 + \angle 8 & \angle 9 + \angle 12 \\ \angle 2 + \angle 1 & \angle 10 + \angle 11 \end{array}$$

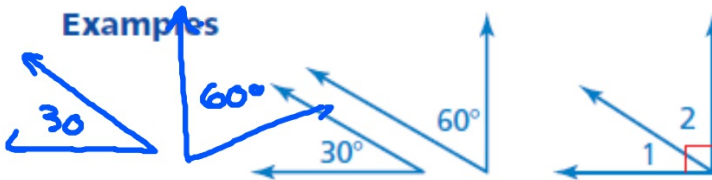
Name two pairs of vertical angles.

$$\begin{array}{l} \angle 10 + \angle 12 \\ \angle 9 + \angle 11 \end{array}$$

Complementary Angles

Words Two angles are **complementary angles** when the sum of their measures is 90° .

Examples



$\angle 1$ and $\angle 2$ are complementary angles.

Supplementary Angles

Words Two angles are **supplementary angles** when the sum of their measures is 180° .

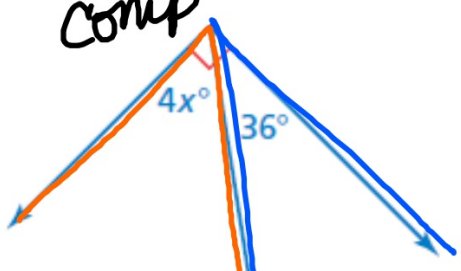
Examples



$\angle 3$ and $\angle 4$ are supplementary angles.

Tell whether the angles are comp supp
complementary or supplementary.
 Then find the value of x .

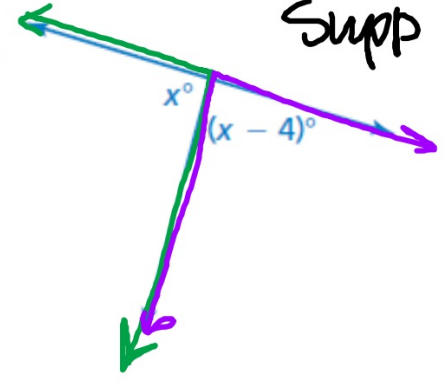
a. **COMP**



$$4x + 36 = 90$$

$$\begin{array}{r} 4x + 36 = 90 \\ -36 \quad -36 \\ \hline 4x = 54 \\ \frac{4x}{4} = \frac{54}{4} \\ x = 13\frac{1}{2} \end{array}$$

b. **SUPP**



$$x + x - 4 = 180$$

$$\begin{array}{r} 2x - 4 = 180 \\ +4 \quad +4 \\ \hline 2x = 184 \\ \frac{2x}{2} = \frac{184}{2} \\ x = 92 \end{array}$$

Homework

Yellow WS2

Due Friday