

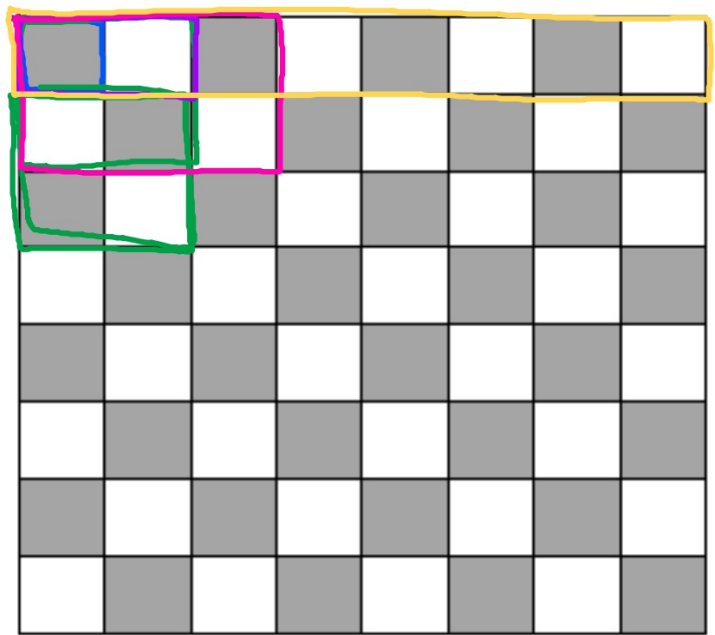
March 25, 2015

Starter

1st
2nd

How many
rectangles are in
the 8x8 chess
board?

Remember that
squares are
rectangles!



Gothic

3/25 Complementary / Supplementary Angles

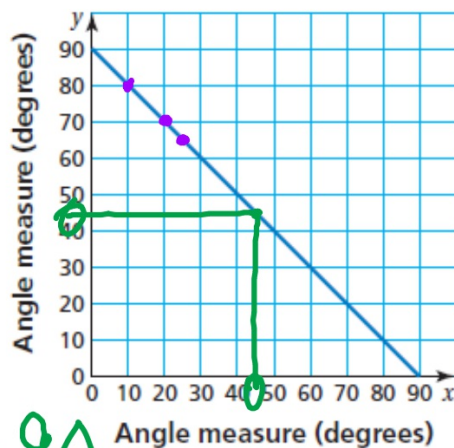
- a. The graph represents the measures of *complementary angles*. Use the graph to complete the table.

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

+90 +90 +90

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

2 L's that add up to 90



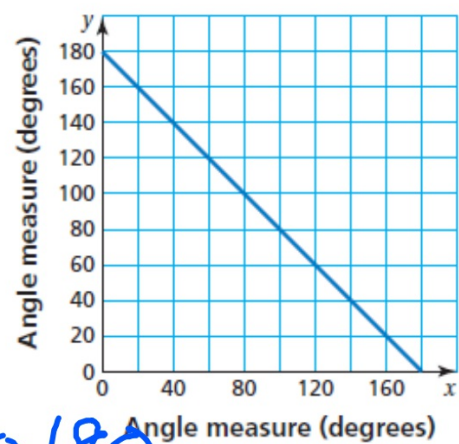
- c. The graph represents the measures of *supplementary angles*. Use the graph to complete the table.

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

180

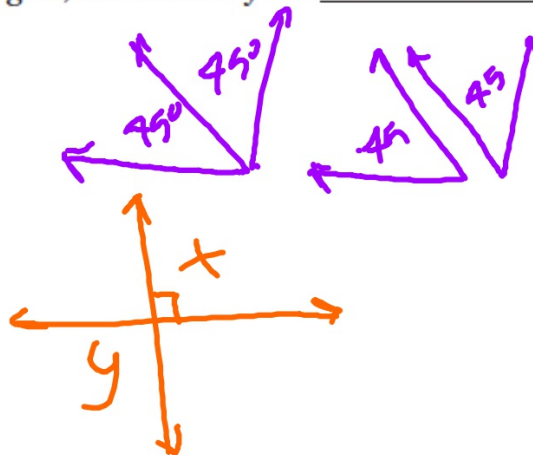
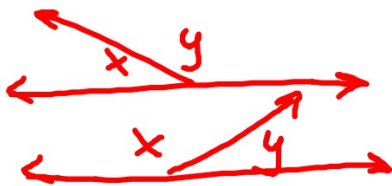
- d. How do you know when two angles are supplementary? Explain.

2 ∠'s that add upto 180

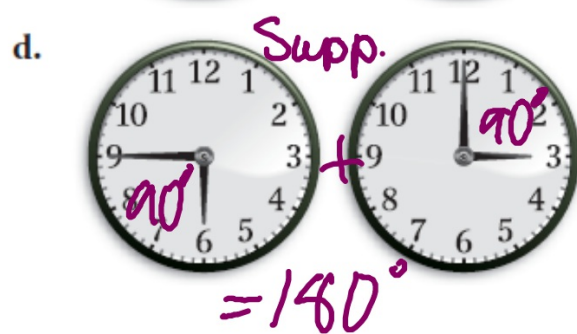
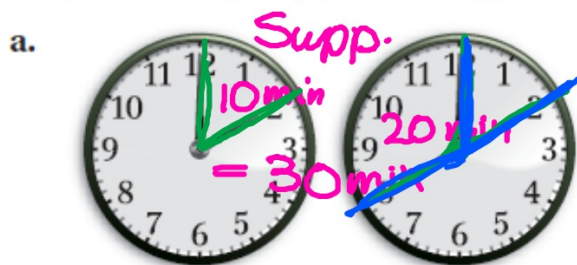


Work with a partner. Copy and complete each sentence with *always*, *sometimes*, or *never*.

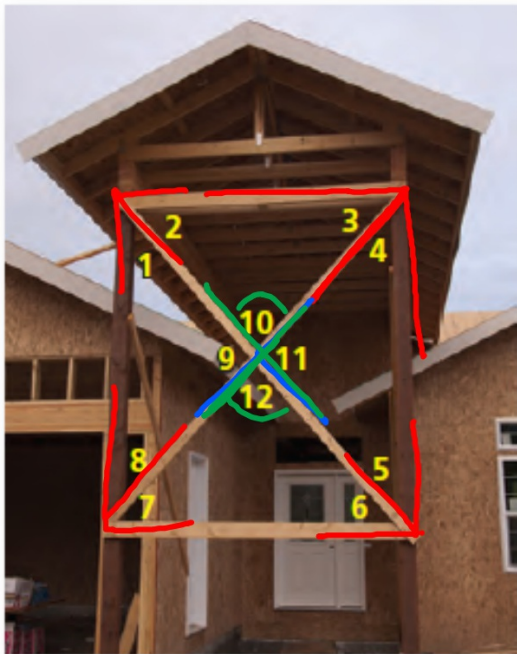
- If x and y are complementary angles, then both x and y are always acute.
- If x and y are supplementary angles, then x is sometimes acute.
- If x is a right angle, then x is never acute.
- If x and y are complementary angles, then x and y are sometimes adjacent.
- If x and y are supplementary angles,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



$\angle 3 + \angle 4$	$\angle 10 + \angle 11$
$\angle 5 + \angle 6$	$\angle 9 + \angle 12$
$\angle 1 + \angle 2$	$\angle 12 + \angle 11$
$\angle 7 + \angle 8$	$\angle 9 + \angle 10$

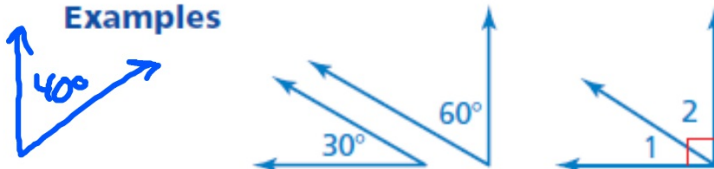
Name two pairs of vertical angles.

$\angle 10 + \angle 12$
$\angle 9 + \angle 11$

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

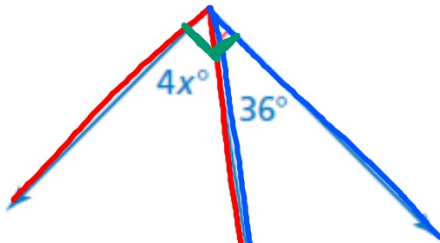


$\angle 3$ and $\angle 4$ are supplementary angles.

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

COMP

a.

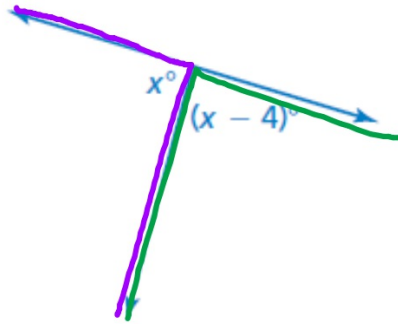


$$4x + 36 = 90$$

$$\frac{4x}{4} = \frac{54}{4}$$

$$x = 13\frac{1}{2}$$

b.



$$x + x - 4 = 180$$

$$2x - 4 = 180$$

$$+4 \quad +4$$

$$2x = 184$$

$$x = 92$$

Homework

Yellow WS 2

Due Friday