9-22-14

What is the distance between (-2, 4) and (5, -8)?

$x_2\ y_2 \qquad x_1\ y_1$

$$d = \sqrt{(-2-5)^2 + (4+-8)^2}$$

$$\sqrt{(-7)^2 + (+12)^2}$$

$$\sqrt{+49 + 144}$$

$$\sqrt{193} \approx 13.89$$

13.9

2.3 - Complementary and Supplementary Angles

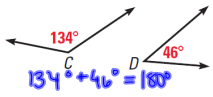
Complementary Angles:
Two angles whose measures add up to 90° together

$m\angle 1 + m\angle 2 = 90°$

$32° + 58° = 90°$

Supplementary Angles:
Two angles whose measures add up to 180° together

$m\angle 1 + m\angle 2 = 180°$

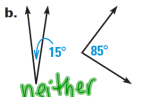


$134° + 46° = 180°$

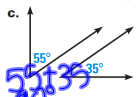
Determine whether the angles are *complementary*, *supplementary*, or *neither*.

a. 

supplementary

b. 

neither

c. 

complementary

$\angle A$ is a **complement** of $\angle C$ means they are complementary.

Ex. 2

a. $\angle A$ is a complement of $\angle C$, and $m\angle A = 47°$. Find $m\angle C$.

$47° + 43° = 90°$

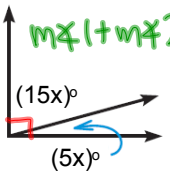
b. $\angle P$ is a supplement of $\angle R$, and $m\angle R = 36°$. Find $m\angle P$.

c. $\angle B$ is a complement of $\angle D$, and $m\angle D = 79°$. Find $m\angle B$.

d. $\angle G$ is a supplement of $\angle H$, and $m\angle G = 113°$. Find $m\angle H$.

Using Algebra $\angle ABD$ and $\angle DBC$ are complementary angles. Find the value of the variable.

1. $m\angle 1 + m\angle 2 = 90$

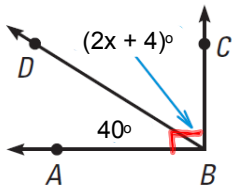


$15x + 5x = 90$

$\frac{20x}{20} = \frac{90}{20}$

$x = 4.5$

2.



$2x + 4 + 40 = 90$

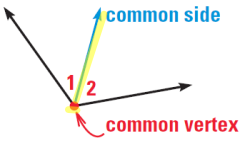
$2x + 44 = 90$

$-44 \quad -44$

$\frac{2x}{2} = \frac{46}{2}$

$x = 23$

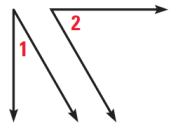
Adjacent Angles- Two angles that share a vertex and share a side



Tell whether the numbered angles are *adjacent* or *nonadjacent*.

not

a.

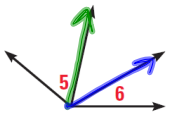


nonadjacent

b.

adjacent

c.



nonadjacent

Quiz corrections

- group of 4
- all students raise hands for question/

  to signal that you are done... team effort
- you earn 1/2 points back

Due Tomorrow:

2.3 pg. 70-73 #8-24, 33-37, 44-47, 49

label it