

What is the midpoint of a line that has endpoints at (0, 3) and (6, -1)?

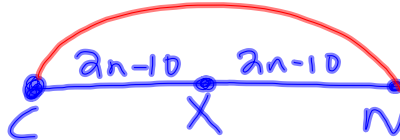
- A. (12, 2)
- B. (3, 1)
- C. (12, -5)
- D. (3, 2)

$$\left( \frac{0+6}{2}, \frac{3+(-1)}{2} \right) = (3, 1)$$

If X is the midpoint of  $\overline{CN}$  and  $CX = 2n - 10$ , what is CN?

- A.  $n - 5$

- B.  $4n - 20$



- C.  $4n$

- D. 40

What are the measures of two supplementary angles if the difference of their measures is  $8^\circ$ ?

- ~~A. 39, 51~~

- B. 76, 84

- C. 86, 94

- ~~D. 41, 49~~

$$94 - 86 = 8^\circ$$

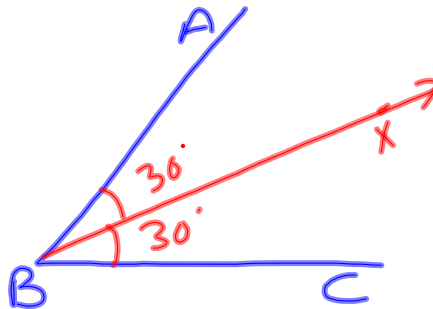
$\overrightarrow{BX}$  bisects  $\angle ABC$ . If  $\angle ABX = 30^\circ$ , what is  $\angle ABC$ ?

- A.  $15^\circ$

- B.  $30^\circ$

- C.  $60^\circ$

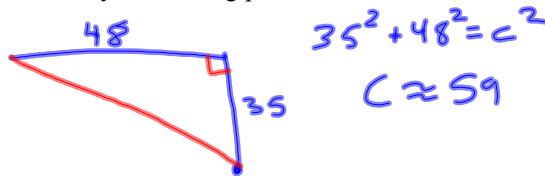
- D.  $120^\circ$



Which of triangle measurements below is a right triangle?

- ~~A.~~ 2, 4, 7      $2^2 + 4^2 = 7^2$
- B.** 6, 8, 10      $6^2 + 8^2 = 10^2$
- ~~C.~~ 11, 12, 13      $11^2 + 12^2 = 13^2$
- ~~D.~~ 12, 14, 16      $12^2 + 14^2 = 16^2$

If you walk 35 miles due North and then 48 miles due West, rounded to the nearest mile how far are you from your starting point?



Consider the statement "If you are nice, you have a lot of friends."

- If you have a lot of friends, then you are nice is the converse of above.
- If you are not nice, you don't have a lot of friends is the inverse of above.
- If you don't have a lot of friends, then you are not nice is the contrapositive of above.

If  $AB - NP = BC - NP$ , then  $AB = BC$  demonstrates what property?

$$\frac{\begin{array}{c} +NP \\ AB \end{array} = \frac{\begin{array}{c} +NP \\ BC \end{array}}{\text{Addition}}$$

If  $\angle 1 + \angle 2 = 90$  and  $\angle 2 = \angle 5 + \angle 6$ , then  $\angle 1 + \angle 5 + \angle 6 = 90$ .

$$\begin{aligned} \angle 1 + \angle 2 &= 90 \\ \angle 2 &= \angle 5 + \angle 6 \\ \angle 1 + \angle 5 + \angle 6 &= 90 \end{aligned}$$

*Substitution*

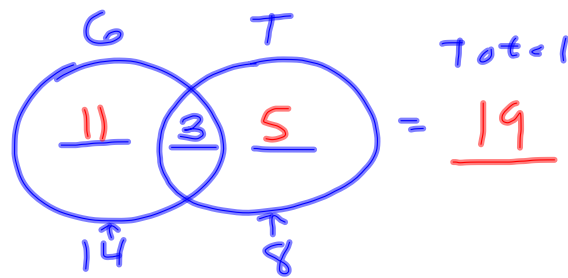
If  $AB + BC = XY + BC$ , then  $AB = XY$  demonstrates what property?

$$\frac{\begin{array}{c} +BC \\ AB \end{array} = \frac{\begin{array}{c} +BC \\ XY \end{array}}{\text{Subtraction}}$$

In my class, everyone plays either golf or tennis.

14 play golf and 8 play tennis.

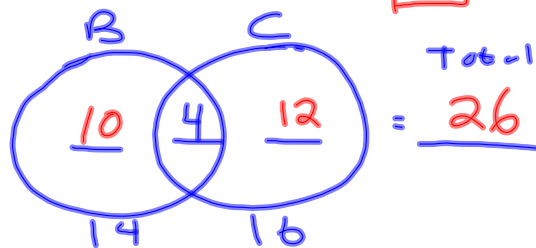
If 3 play both tennis and golf, how many kids are in my class?



There are 14 kids in band and 16 in chorus.

If 4 of these kids are in both chorus

and band, how many total kids are in either band or chorus? *everyone*



Give the equation in slope intercept form that goes through (2, 7) and has a slope of 4.

$$\begin{aligned} y - y_1 &= m(x - x_1) \\ y - 7 &= 4(x - 2) \\ x - 2 &= 4x - 8 \\ \frac{x - 2}{+2} &= \frac{4x - 8}{+7} \\ \hline y &= 4x - 1 \end{aligned}$$

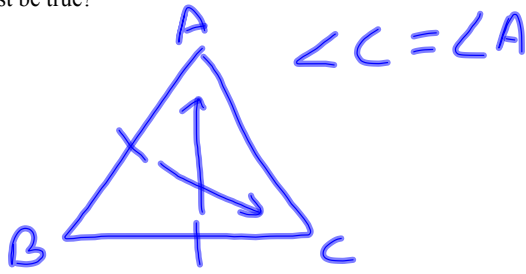
What would be the slope of the line that is perpendicular to  $y = 5x + 4$ ?

$$\frac{5}{1}$$

$-\frac{1}{5}$

If  $\triangle ABC$  is an isosceles triangle with  $AB = BC$ , which statement must be true?

- A.  $\angle C = \angle B$
- B.  $\angle A = \angle B$
- C.  $\angle A = \angle C$
- D.  $AC = BC$



Which of the following does not prove congruency?

- A. ASA
- B. SSA
- C. SSS
- D. All prove congruency

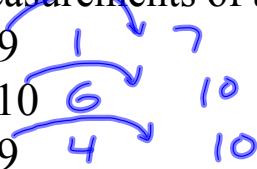
AAA

What does the symbol  $\cong$  mean?

Congruency

Which of the measurements below could be the measurements of a triangle?

- ~~A.~~ 3, 4, 9
- ~~B.~~ 2, 8, 10
- C. 3, 7, 9
- D. 6, 8, 16



What is the distance from  $(1, 5)$  to  $(7, 6)$ ?

$$\begin{aligned} D &= \sqrt{\Delta x^2 + \Delta y^2} \\ &= \sqrt{6^2 + 1^2} \\ &= \sqrt{36 + 1} \\ &= \sqrt{37} \end{aligned}$$