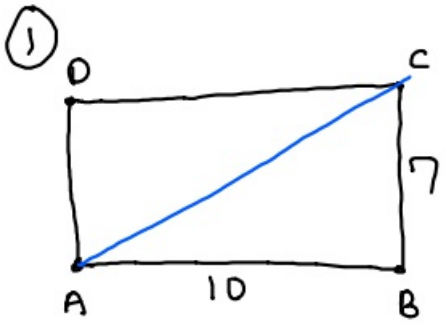
9-6-19 2nd Geo

① 

What is AC?

$leg^2 + leg^2 = hyp^2$

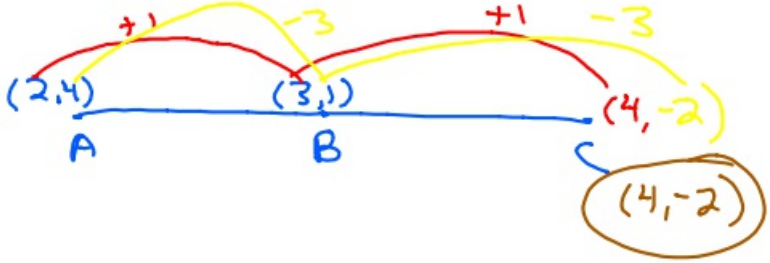
$10^2 + 7^2 = hyp^2$

$100 + 49 = hyp^2$

$\sqrt{149} = \sqrt{hyp^2}$

$hyp \approx 12.2$

② On $\overline{AC}$, B is the midpoint. A is at (2,4) and B is at (3,1). Where is C?



③ Which of these is a right triangle?

Ⓐ 3, 5, 6 $3^2+5^2=6^2$? NO

$9 + 25 = 36$?

$34 = 36$?

Ⓑ 6, 10, 8

$6^2 + 8^2 = 10^2$?

$36 + 64 = 100$

$100 = 100$ ✓

Yes

(4) $\angle 1$ and $\angle 2$ are vertical angles. $\angle 1 = 4n-6$ and $\angle 2 = 2n+5$. Find $\angle 1$.

$\angle 1 = \angle 2$

$4n-6 = 2n+5$

$-2n \quad -2n$

$2n-6 = 5$

$+6 \quad +6$

$\frac{2n}{2} = \frac{11}{2}$

$n = 5.5$

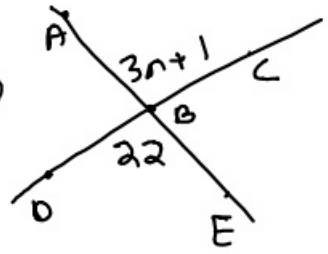
$\angle 1 = 4 \cdot n - 6$

$= 4 \cdot 5.5 - 6$

$= 22 - 6$

$= 16$

(5)



What is n?

$3n+1 = 22$

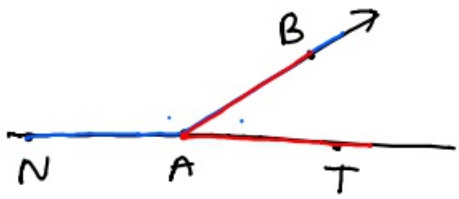
$-1 \quad -1$

$3n = 21$

$\frac{3n}{3} = \frac{21}{3}$

$n = 7$

(6)



What angle is a linear pair to $\angle NAB$?

$\angle BAT$

(7) $\angle 1$ and $\angle 2$ are Supplementary angles.

If $\angle 1 = n + 10$ and $\angle 2 = 9n - 30$, what is $\angle 1$?

$\angle 1 + \angle 2 = 180^\circ$

$n + 10 + 9n - 30 = 180^\circ$

$10n - 20 = 180^\circ$

$+20 \quad +20$

$\frac{10n}{10} = \frac{200}{10}$

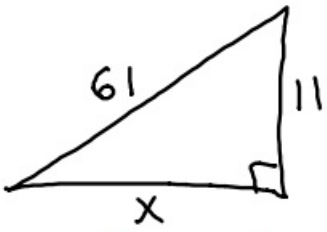
$n = 20$

$\angle 1 = n + 10$

$= 20 + 10$

$= 30^\circ$

(8)



$leg^2 + leg^2 = hyp^2$

$x^2 + 11^2 = 61$

$x^2 + 121 = 3721$

$-121 \quad -121$

$\sqrt{x^2} = \sqrt{3600}$

$x = 60$