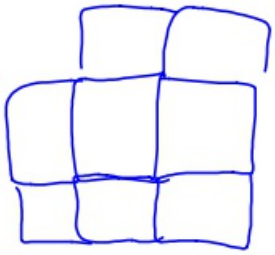
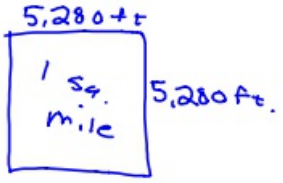
8-22-17 5th Geo

Hickam Proof 1

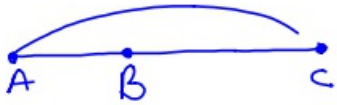


5,280 feet



Continued from yesterday

① If B is between A and C with $AB = 5n$, $BC = 3n - 4$, and $AC = 6n + 10$, what is BC?



$AB + BC = AC$

$5n + 3n - 4 = 6n + 10$

$8n - 4 = 6n + 10$

$-6n \quad -6n$

$2n - 4 = 10$

$+4 \quad +4$

$\frac{2n}{2} = \frac{14}{2}$

$n = 7$

$BC = 3 \cdot n - 4$

$= 3 \cdot 7 - 4$

$= 17$ cm

② If N is between A and T with $AN = 11$, $NT = 3n-1$, and $AT = n+28$, what is NT?

$AN + NT = AT$

$11 + 3n - 1 = n + 28$

$3n + 10 = n + 28$

$-n \quad -n$

$2n + 10 = 28$

$-10 \quad -10$

$\frac{2n}{2} = \frac{18}{2}$

$n = 9$

$NT = 3n - 1$

$= 3 \cdot 9 - 1$

$= 26$ cm

Ex1: Solve for the $\square$

$4n - 1 + \square = 2n + 19$

$-4n \quad +1 \qquad -4n + 1$

$\square = -2n + 20$

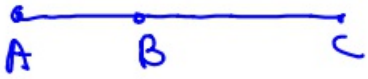
Ex 2: Get $\square$ by itself

$9 - 3x + \square = 2x + 1$

$-9 + 3x \qquad +3x - 9$

$\square = 5x - 8$

③ If B is between A and C with $AB = 5n - 2$ and $AC = 7n + 9$, what is BC (expression answer)?



$AB + BC = AC$

$5n - 2 + BC = 7n + 9$

$-5n \quad +2 \qquad -5n + 2$

$BC = 2n + 11$

④ If N is between X and T with $XN = 8n + 6$ and $XT = 10n + 1$, what is NT?

$XN + NT = XT$

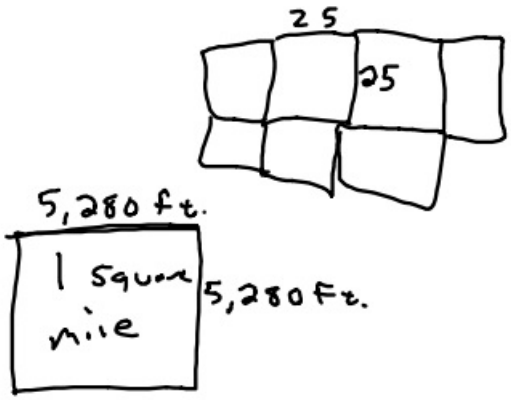
$8n + 6 + NT = 10n + 1$

$-8n - 6 \qquad -8n - 6$

$NT = 2n - 5$

8-22-17 6th Geo

Hickam Proof 1



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① If B is between A and C with $AB = 2n+1$, $BC = 3n+2$, and $AC = n+15$, what is AB?

$AB + BC = AC$

$2n+1 + 3n+2 = n+15$

$5n+3 = n+15$

$-n \quad -n$

$4n+3 = 15$

$-3 \quad -3$

$4n = 12$

$n = 3$

$AB = 2 \cdot n + 1$

$2 \cdot 3 + 1$

7

② If X is between T and C with $TX = 10$, $XC = 2n-4$, and $TC = 4n-8$, what is XC?

$TX + XC = TC$

$10 + 2n-4 = 4n-8$

$2n+6 = 4n-8$

$-2n \quad -2n$

$6 = 2n-8$

$+8 \quad +8$

$14 = 2n$

$n = 7$

$XC = 2n-4$

$= 2 \cdot 7 - 4$

$= 10$

Ex 1: $2n + 8 + \square = 5n - 1$

$-2n \quad -8 \qquad -2n - 8$

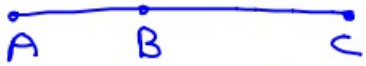
$\square = 3n - 9$

Ex 2: $4n - 5 + \square = n + 18$

$-4n \quad +5 \qquad -4n + 5$

$\square = -3n + 23$

③ If B is between A and C with $AB = 8n - 5$ and $AC = 10n + 1$, what is BC?



$AB + BC = AC$

$8n - 5 + BC = 10n + 1$

$-8n + 5 \qquad -8n + 5$

$BC = 2n + 6$

④ C is between N and X. If $NC = 3n - 10$ and $NX = 9n + 1$, what is CX?

$NC + CX = NX$

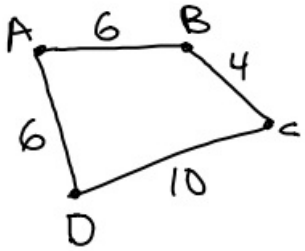
$8n - 10 + CX = 9n + 1$

$-3n \quad +10 \qquad -3n + 10$

$CX = 6n + 11$

Congruent → Shapes, lines, etc. are the same

Symbol is $\cong$



$\overline{AB} \cong \overline{AD}$