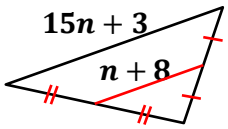
Name: _____ Period: _____ Date: _____

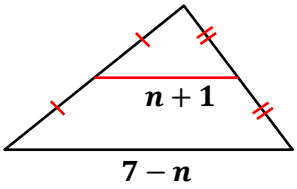
MIDSEGMENTS OF TRIANGLES Bell Work

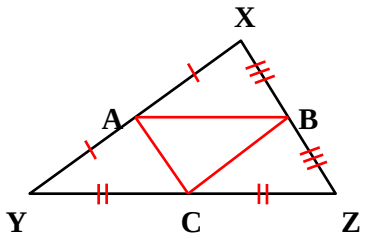
Find the value of n.

1.



2.





In ΔXYZ, $\overline{YC} = \overline{CZ}$, $\overline{YA} = \overline{AX}$, $\overline{XB} = \overline{BZ}$. Complete the statements below.

3. $\overline{AB}$ = _____ = _____
4. $\overline{BC}$ = _____ = _____
5. $\overline{AC}$ = _____ = _____
6. $\overline{AB}$ ∥ _____
7. $\overline{BC}$ ∥ _____
8. $\overline{AC}$ ∥ _____
9. If $\overline{BC} = x + 12$ and $\overline{XA} = 4x + 3$, what is $\overline{AY}$?

10. If $\overline{BZ} = 5x - 3$ and $\overline{AC} = x + 13$, what is $\overline{XZ}$?

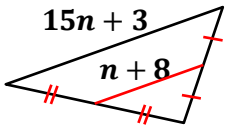
Name: _____ Period: _____ Date: _____

MIDSEGMENTS OF TRIANGLES Bell Work

ANSWER

Find the value of n.

11.



$2(n+8) = 15n+3$

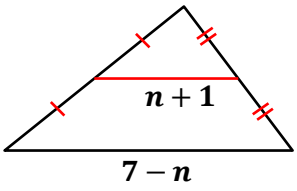
$2n+16 = 15n+3$

$16-3 = 15n-2n$

$13 = 13n$

$\mathbf{1 = n}$

12.



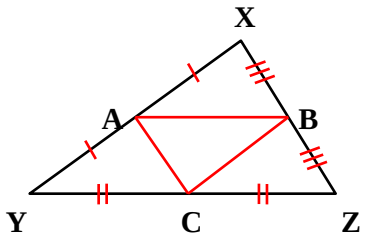
$7-n = 2(n+1)$

$7-n = 2n+1$

$7-1 = 2n+n$

$6 = 3n$

$\mathbf{2 = n}$



In ΔXYZ, $\overline{YC} = \overline{CZ}, \overline{YA} = \overline{AX}, \overline{XB} = \overline{BZ}$. Complete the statements below.

13. $\overline{AB} = \overline{YC} = \overline{CZ}$
14. $\overline{BC} = \overline{XA} = \overline{AY}$
15. $\overline{AC} = \overline{XB} = \overline{BZ}$
16. $\overline{AB} \parallel \overline{YZ}$
17. $\overline{BC} \parallel \overline{XY}$
18. $\overline{AC} \parallel \overline{XZ}$
19. If $\overline{BC} = x+12$ and $\overline{XA} = 4x+3$, what is $\overline{AY}$?

$\overline{BC} = \overline{XA}$
$x+12 = 4x+3$
$12-3 = 4x-x$
$9 = 3x$
$3 = x$

$\overline{XA} = 4x+3$
$\overline{XA} = 4(3)+3$
$\overline{XA} = 12+3$
$\overline{XA} = 15$

$\overline{AY} = \overline{XA}$
$\mathbf{\overline{AY} = 15}$

20. If $\overline{BZ} = 5x-3$ and $\overline{AC} = x+13$, what is $\overline{XZ}$?

$\overline{BZ} = \overline{AC}$
$5x-3 = x+13$
$5x-x = 13+3$
$4x = 16$
$x = 4$

$\overline{AC} = x+13$
$\overline{AC} = 4+13$
$\overline{AC} = 17$

$\overline{XZ} = 2(\overline{AC})$
$\overline{XZ} = 2(17)$
$\mathbf{\overline{XZ} = 34}$