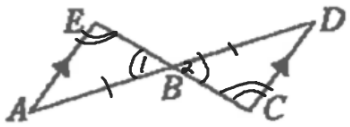
Given: $\overline{AE} \parallel \overline{DC}$; $\overline{AB} \cong \overline{DB}$

Prove: $\Delta ABE \cong \Delta DBC$



Statement	Reason
1) $\overline{AE} \parallel \overline{DC}$, $\overline{AB} \cong \overline{DB}$	1) Given
2) $\angle 1 \cong \angle 2$	2) Vertical $\angle$'s
3) $\angle E \cong \angle C$	3) Alternate Interior $\angle$'s
4) $\Delta ABE \cong \Delta DBC$	4) AAS

SAS

ASA

AAS

~~SSS~~

~~AAA~~

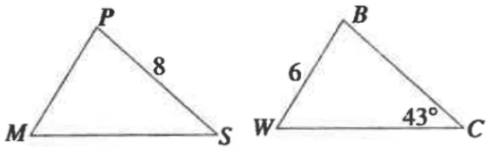
CPCTC

For Exercises 4–6, $\triangle MPS \cong \triangle WBC$. Complete each statement.

4. $BC =$? 8

5. $m\angle S =$? 43°

6. $PM =$? 6

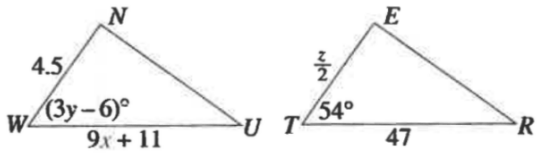


For Exercises 7–9, $\triangle WUN \cong \triangle TRE$.

7. Find the value of x.

8. Find the value of y.

9. Find the value of z.



$WU = TR$

$9x + 11 = 47$

$-11 \quad -11$

$9x = 36$

$x = 4$

$m\angle W = m\angle T$

$3y - 6 = 54$

$3y = 60$

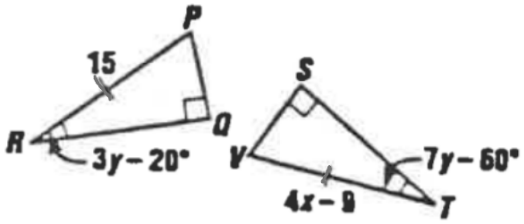
$y = 20$

$WN = TE$

$2(4.5) = \left(\frac{z}{2}\right)2$

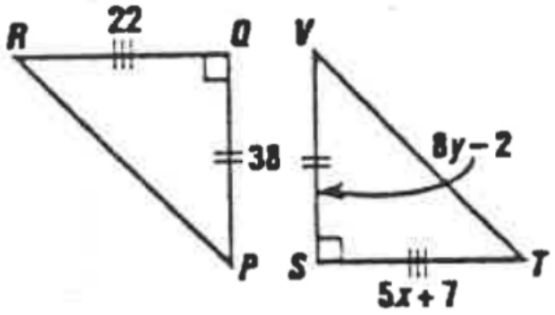
$9 = z$

Find the value of x and y given the trianges are congurent



$4x-9=15$
$+9 \quad +9$
$4x=24$
$x=6$

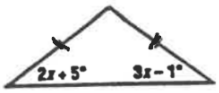
$3y-20=7y-60$
$-3y \quad -3y$
$-20=4y-60$
$40=4y$
$y=10$



$5x+7=22$
$5x=15$
$x=3$

$8y-2=38$
$8y=40$
$y=5$

17. x = 6



$2x+5 = 3x-1$

$-2x \quad -2x$

$5 = x-1$

$+1 \quad +1$

$x = 6$

18. x = _____

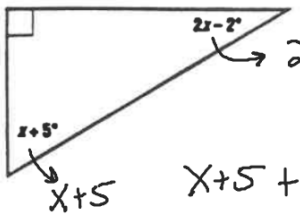
$3x+8$

$7x-12 = 3x+8$

$4x = 20$

$x = 5$

19. x = _____



$2x-2$

$X+5$

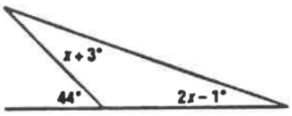
$X+5+2x-2 = 90$

$3x+3 = 90$

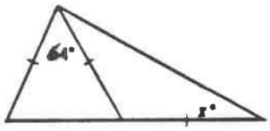
$3x = 87$

$X = 29$

20. x = _____



21. x = _____



22. x = _____