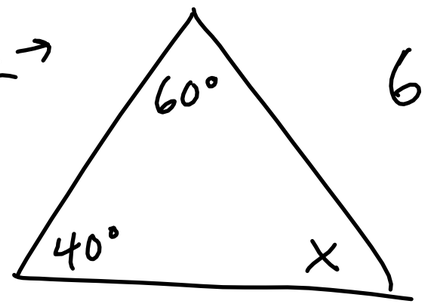
Parallel Lines & Triangles

- Triangle Sum Theorem → ∠'s in triangle add to 180°

EX →

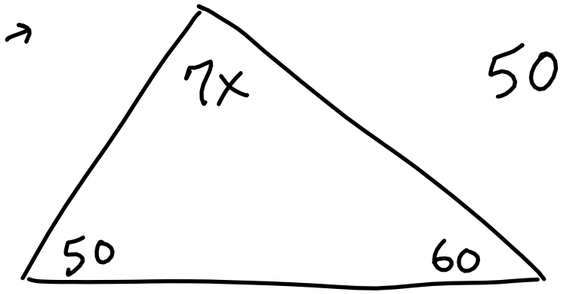


$60+40+x=180$

$100+x=180$

$x=80$

EX →

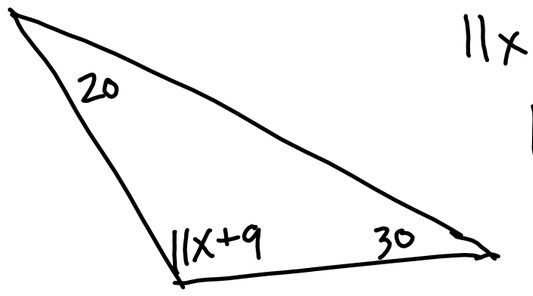


$50+60+7x=180$

$110+7x=180$

$\frac{7x}{7}=\frac{70}{7}$ $x=10$

EX →



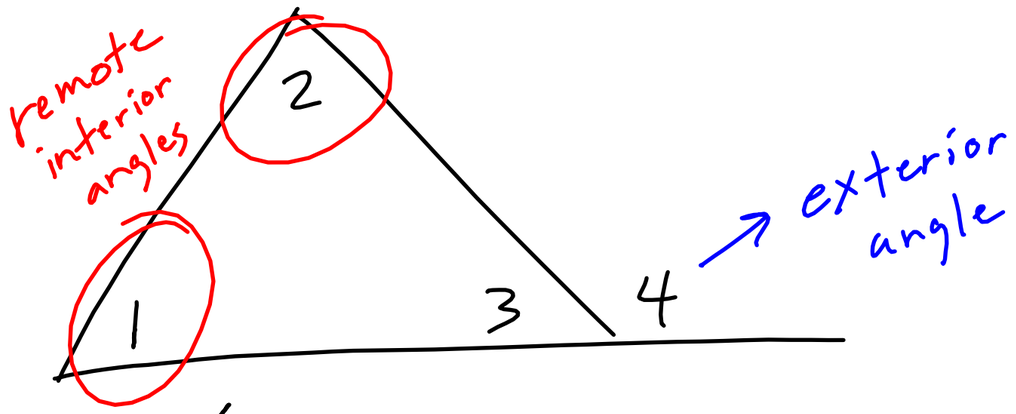
$11x+9+20+30=180$

$11x+59=180$

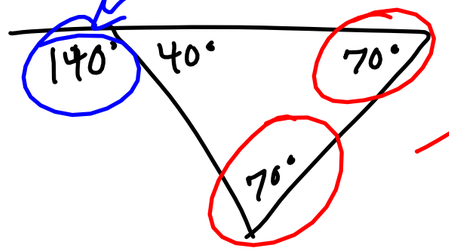
$-59 \quad -59$

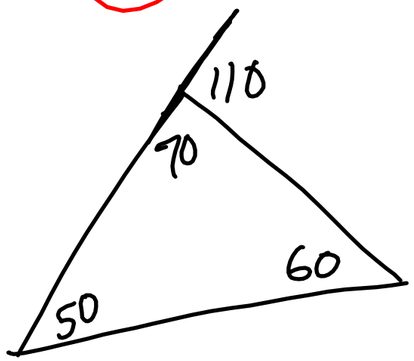
$\frac{11x}{11}=\frac{121}{11}$

$x=11$



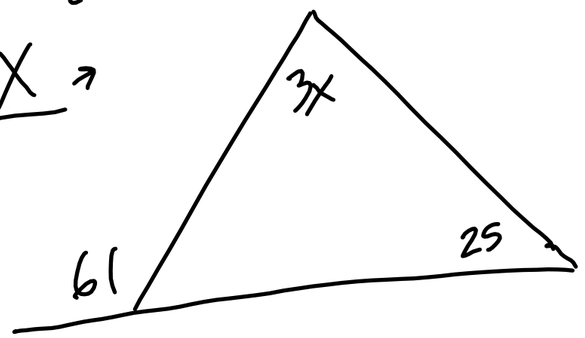
EX → What is exterior ∠? What are remote interior ∠'s?



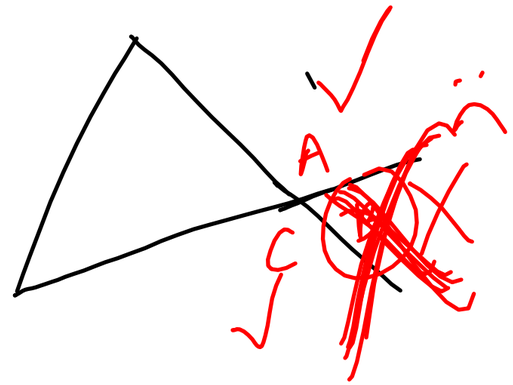


— Triangle Exterior ∠ Theorem → exterior ∠ of a △ is equal to the sum of the 2 remote interior ∠'s

EX →



$3x + 25 = 61$
$-25 \quad -25$
$\frac{3x}{3} = \frac{36}{3}$
$x = 12$



HW: p. 175 → 9-21, 29, 30, 43