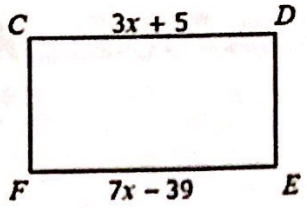
**6.** Find $EF$.




$3x+5=7x-39$

$-3x \quad -3x$

$5=4x-39$

$+39 \quad +39$

$44=4x$

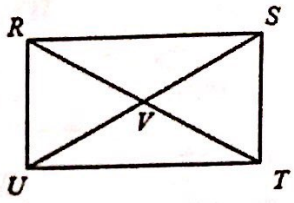
$11=x$

$7(11)-39$

$77-39$

$\boxed{38}$

**7.** If $RT = 5x - 14$ and $US = 2x + 10$, find $VT$.




$5x-14=2x+10$

$3x=24$

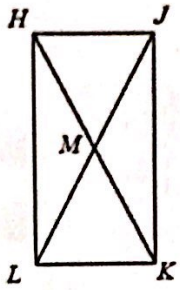
$x=6$

$RS=5(6)-14$

$16$

$VT=16/2=\boxed{8}$

**8.** If $JM = x + 17$ and $MK = 5x - 23$, find $JL$.




$x+17=5x-23$

$-x \quad -x$

$17=4x-23$

$+23 \quad +23$

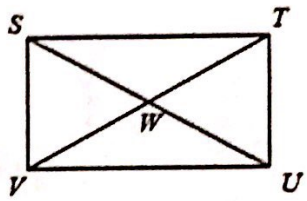
$40=4x$

$10=x$

$JM=10+17=27$

$JL=2(27)=\boxed{54}$

**9.** If $VW = 9x - 11$ and $SU = 16x - 12$, find $WT$.




$2(9x-11)=16x-12$

$18x-22=16x-12$

$-16x \quad -16x$

$2x-22=-12$

$+22 \quad +22$

$2x=10$

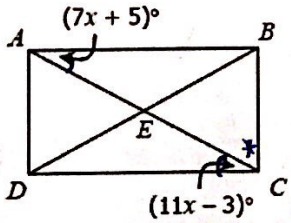
$x=5$

$VW=9(5)-11$

$45-11$

$\boxed{34}$

**10.** Find $m\angle BCE$.




$7x+5=11x-3$

$-7x \quad -7x$

$5=4x-3$

$+3 \quad +3$

$8=4x$

$2=x$

$11(2)-3$

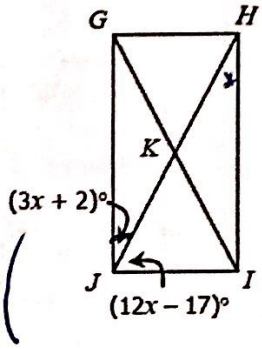
$22-3$

$19°$

$90-19$

$\boxed{71°}$

**11.** Find $m\angle JHI$.




$3x+2+12x-17=90$

$15x-15=90$

$+15 \quad +15$

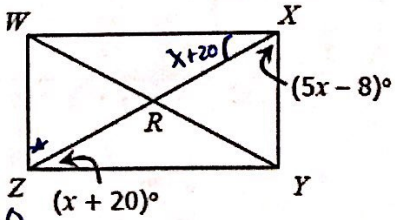
$\frac{15x}{15}=\frac{105}{15}$

$x=7$

$3(7)+2$

$21+2=\boxed{23°}$

**12.** Find $m\angle XZW$.




$x+20+5x-8=90$

$6x+12=90$

$-12 \quad -12$

$\frac{6x}{6}=\frac{78}{6}$

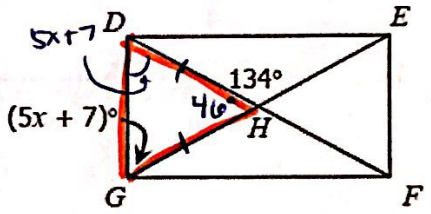
$x=13$

$5(13)-8$

$65-8$

$\boxed{57°}$

**13.** Solve for x.




$5x+7+5x+7+46=180$

$10x+60=180$

$-60 \quad -60$

$10x=120$

$\boxed{x=12}$