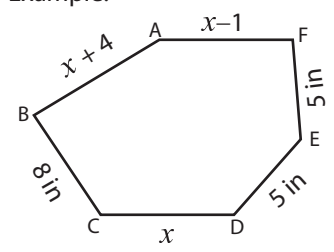
Name : _____ Score : _____

Polygon - Finding Unknown Sides

Example:



Perimeter = 42 in

Perimeter = Sum of length of the sides

$42 = x - 1 + 5 + 5 + x + 8 + x + 4$

$42 = 3x + 21$

$3x = 42 - 21 = 21$

$x = \frac{21}{3} =$ **7 in**

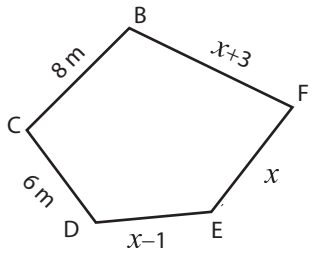
$\overline{AB} = x+4 = 7 + 4 =$ **11 in**

$\overline{CD} = x =$ **7 in**

$\overline{AF} = x-1 = 7 - 1 =$ **6 in**

Find the value of x and length of the unknown sides.

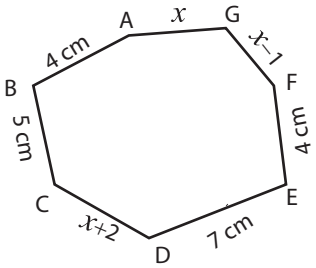
1)



Perimeter = 37 m ; x = _____

$\overline{DE}$ = _____ ; $\overline{EF}$ = _____ ; $\overline{BF}$ = _____

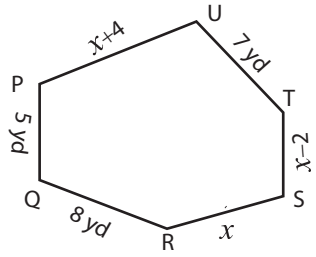
2)



Perimeter = 30 cm ; x = _____

$\overline{AG}$ = _____ ; $\overline{CD}$ = _____ ; $\overline{FG}$ = _____

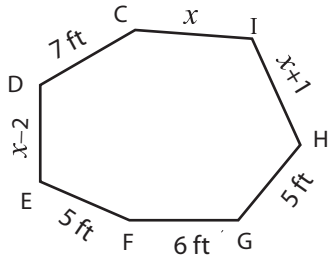
3)



Perimeter = 40 yd ; x = _____

$\overline{PU}$ = _____ ; $\overline{RS}$ = _____ ; $\overline{ST}$ = _____

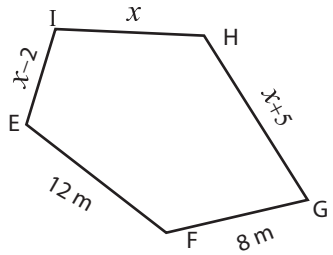
4)



Perimeter = 46 ft ; x = _____

$\overline{CI}$ = _____ ; $\overline{DE}$ = _____ ; $\overline{HI}$ = _____

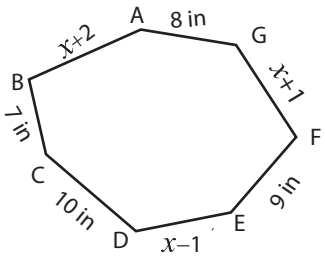
5)



Perimeter = 50 m ; x = _____

$\overline{GH}$ = _____ ; $\overline{HI}$ = _____ ; $\overline{EI}$ = _____

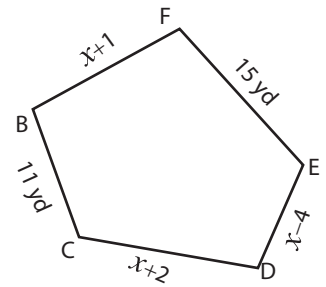
6)



Perimeter = 66 in ; x = _____

$\overline{AB}$ = _____ ; $\overline{DE}$ = _____ ; $\overline{FG}$ = _____

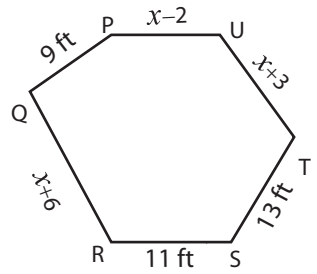
7)



Perimeter = 61 yd ; x = _____

$\overline{DE}$ = _____ ; $\overline{CD}$ = _____ ; $\overline{BF}$ = _____

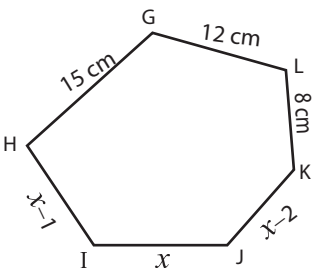
8)



Perimeter = 70 ft ; x = _____

$\overline{QR}$ = _____ ; $\overline{TU}$ = _____ ; $\overline{PU}$ = _____

9)



Perimeter = 65 cm ; x = _____

$\overline{HI}$ = _____ ; $\overline{IJ}$ = _____ ; $\overline{JK}$ = _____