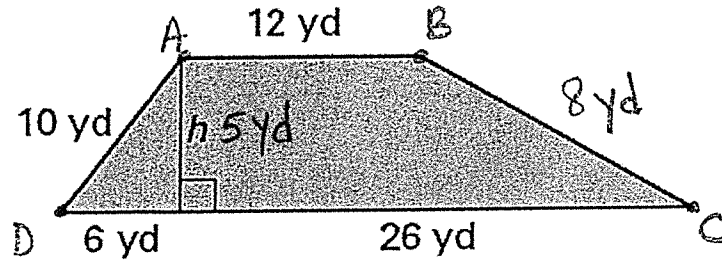


1. Find the area and perimeter of trapezoid ABCD below.



$$A = \frac{1}{2} h (b_1 + b_2)$$

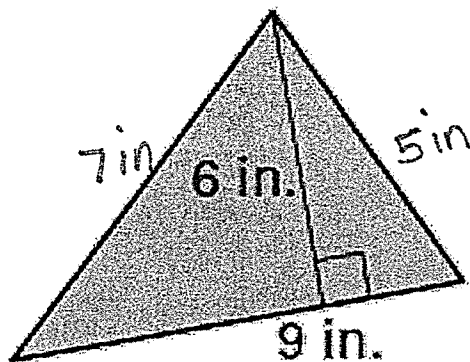
$$A = \frac{1}{2} 5 (12 + 32)$$

$$A = 110 \text{ yd}^2$$

$$P = 10 + 12 + 6 + 8 + 26$$

$$P = 62 \text{ yd}$$

2. Find the area and Perimeter of the given triangle.



$$A = \frac{1}{2} b \cdot h$$

$$A = \frac{1}{2} (9)(6) = 27 \text{ in}^2 = A$$

$$P = 7 + 5 + 9 = 21 \text{ in} = P$$

3. Find the total sum of all angles in a regular 11-sided polygon AND find the measure of one of the angles.

$$9 \times 180^\circ = 1620^\circ$$

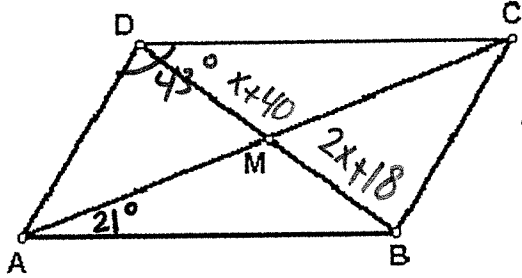
$$\frac{1620^\circ}{11} = 147.3^\circ \text{ for every angle}$$

4. Find the total sum of all angles in a regular 22-sided polygon AND find the measure of one of the angles.

$$20 \times 180^\circ = 3600^\circ$$

$$\frac{3600}{22} = 163.6^\circ \text{ for every angle}$$

5. Parallelogram ABCD is shown below. If  $DM = x + 40$  cm and  $MB = 2x + 18$  cm, find the length of DB. Justify by using a property of parallelograms.



$$\begin{array}{r} x+40 = 2x+18 \\ -x \quad -x \\ \hline 40 = x+18 \\ -18 \quad -18 \\ \hline \boxed{x=22} \end{array}$$

\* Diagonals bisect each others.

$$DM = 22 + 40 = 62 \text{ cm}$$

$$\boxed{DB = 62 + 62 = 124 \text{ cm}}$$

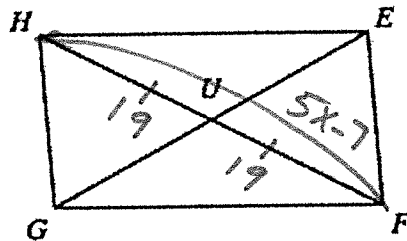
Still using Parallelogram ABCD, if  $m\angle ADC = 43^\circ$ , determine the  $m\angle ACB$ ,  $m\angle D$ , and  $m\angle B$ . Justify by using the parallelogram property.

$$m\angle D = m\angle B = 43^\circ \quad \text{* Opposite angles are Congruent}$$

6.

$$UH = 19$$

$$FH = 5x - 7$$



Find  $x$ . Justify by using the property of a parallelogram

$$\begin{array}{r} 5x - 7 = 38 \\ +7 \quad +7 \\ \hline 5x = 45 \end{array}$$

$$\frac{5x}{5} = \frac{45}{5} \quad \boxed{x=9}$$

\* Diagonals bisect each others