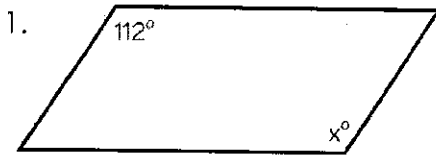


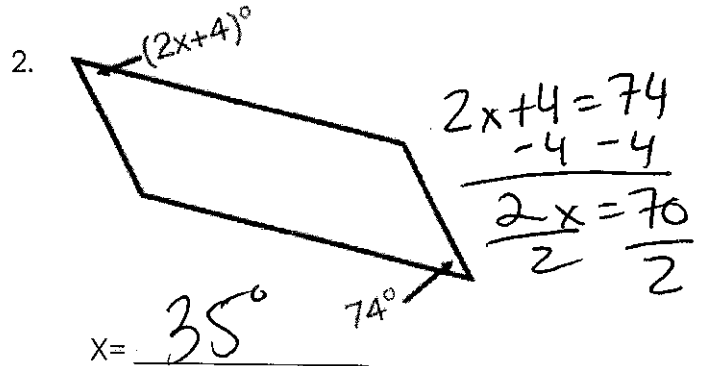
## Properties of Parallelograms

1. Opposite angles of a parallelogram are congruent.
2. Opposite sides of a parallelogram are congruent.
3. Consecutive angles in a parallelogram are Supplementary.
4. The diagonals of a parallelogram bisect each other.

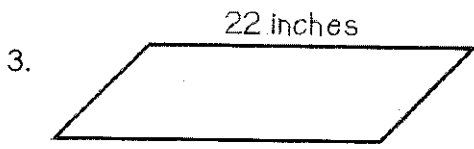
1st Property: Opposite angles are congruent



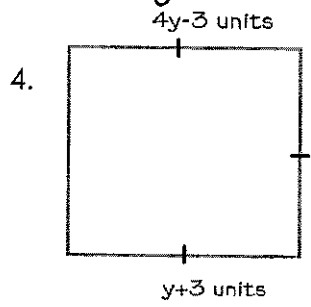
$x = 112^\circ$



2nd Property: Opposite sides are congruent

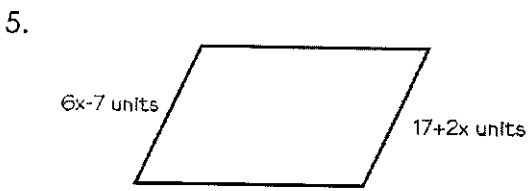


$y = 22 \text{ in.}$



$$\begin{array}{r} 4y - 3 = y + 3 \\ +3 \quad +3 \\ \hline 4y = y + 6 \\ -y \quad -y \\ \hline 3y = 6 \\ \frac{3y}{3} = \frac{6}{3} \end{array}$$

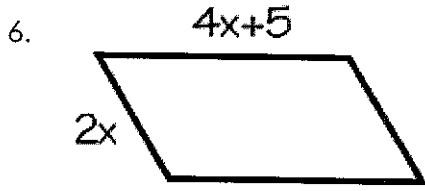
$y = 2 \text{ units}$



$x = 6 \text{ units}$

$$\begin{array}{r} 6x - 7 = 17 + 2x \\ -2x \quad -2x \\ \hline 4x - 7 = 17 \\ +7 \quad +7 \\ \hline 4x = 24 \\ \frac{4x}{4} = \frac{24}{4} \end{array}$$

$x = 6$



$$\begin{array}{r} 4x + 5 = 2x \\ -4x \quad -4x \\ \hline 5 = -2x \\ \frac{5}{-2} = \frac{-2x}{-2} \end{array}$$

$-5/2 = x$

What is wrong with this logic?  
Sides are not opposite

