$$
\begin{gathered}
\text { 12-4-13 } \\
5^{+n} \text { Geo } \\
\text { G. } 2 \text { Parallelograms }
\end{gathered}
$$

Parallelogram. A quadrilateral with opposite sides parallel.

(1) Opposite sides ans $=$ in length
(2) Opposite angles are $=$.
(3) Diagonals bisect each other
(4) Consecutive angles add up to $180^{\circ}$. (supplementary)


Find the $4^{\text {an }}$ point on parallelogram $A B C D$ given

$$
\begin{aligned}
& A=(0,2), B=(5,2) \text {, and } \\
& C=(3,9) .
\end{aligned}
$$



Find $4^{\text {ra }}$ point of parallelogian $A B C D$ if

$$
\begin{aligned}
& A=(2,1) \quad B=(10,1) \quad C=(4,6) \\
& =(-4,6) \quad 8 \quad C=(4,6)
\end{aligned}
$$

$$
6-3
$$

Rectangle-speciel type of parallelogram

- All angles are $90^{\circ}$


Exes specie)
Diagonals
are $=$ in length.


Look Fur $a^{2}+b^{2}=c^{2}$

Rhombus. Pardlleogren with all sides equal in


$$
12-4-13
$$

$6^{\text {10 }}$ Geo
6-2 Parallelograms
Parallelogram - A quadrilateral whose opposite sides are parallel.


Facts of a parallaloge.m
(1) Opposite sides are = in length
(2) Opposite angles are $=$.
(3) Consecutive angles add up to $180^{\circ}$. (supplementary)
(4) Diagonels bisect one another.


If parallelogram $A B C D$ has
$A=(2.4), B=(9.4)$, and
$C=(7,11)$, where is $D ?(0,11)$

6.3 Rectangles Rhumbi

Rectangle. Quadrilateral with $490^{\circ}$ angles


Notice

$$
a^{2}+b^{2}=c^{2}
$$

Rhombus - $A$ auadrictical with all sides $=$ in length.


