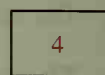


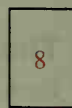
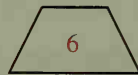
Classroom Exercises

1. Name each figure shown that appears to be:

- a parallelogram
- a rectangle
- a rhombus
- a square



2. Name each figure that is *both* a rectangle *and* a rhombus.



3. Name each figure that is a rectangle but not a square.



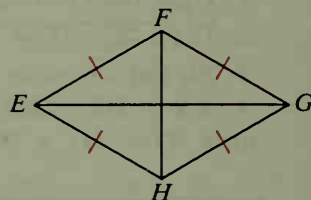
4. Name each figure that is a rhombus but not a square.

5. When you know that one angle of a parallelogram is a right angle, you can prove that the parallelogram is a rectangle. Draw a diagram and explain.

6. When you know that two consecutive sides of a parallelogram are congruent, you can prove that the parallelogram is a rhombus. Draw a diagram and explain.

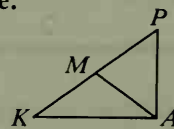
7. Given: Rhombus $EFGH$

- F , being equidistant from E and G , must lie on the ? of \overline{EG} .
- H , being equidistant from E and G , must lie on the ? of \overline{EG} .
- From (a) and (b) you can deduce that \overline{FH} is the ? of \overline{EG} .
- State the theorem of this section that you have just proved.



$\angle KAP$ is a right angle, and \overline{AM} is a median. Complete.

- If $MP = 6\frac{1}{2}$, then $MA = \underline{\hspace{1cm}}$.
- If $MA = t$, then $KP = \underline{\hspace{1cm}}$.
- If $m\angle K = 40$, then $m\angle KAM = \underline{\hspace{1cm}}$.



11. In the diagrams below, the red figures are formed by joining the midpoints of the sides of the quadrilaterals.

- What seems to be the common property of the red figures?
- Describe how you would prove your answer to part (a).

