

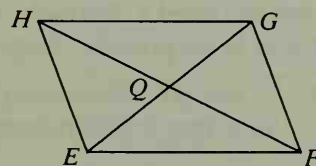
Chapter Summary

1. A parallelogram has these properties:
 - a. Opposite sides are parallel.
 - b. Opposite sides are congruent.
 - c. Opposite angles are congruent.
 - d. Diagonals bisect each other.
2. The chart on page 172 lists five ways to prove that a quadrilateral is a parallelogram.
3. If two lines are parallel, then all points on one line are equidistant from the other line.
4. If three parallel lines cut off congruent segments on one transversal, then they cut off congruent segments on every transversal.
5. A line that contains the midpoint of one side of a triangle and is parallel to another side bisects the third side.
6. The segment that joins the midpoints of two sides of a triangle is parallel to the third side and has a length equal to half the length of the third side.
7. The midpoint of the hypotenuse of a right triangle is equidistant from all three vertices.
8. Rectangles, rhombuses, and squares are parallelograms with additional properties. Trapezoids and kites are not parallelograms, but are special quadrilaterals with additional properties.
9. The median of a trapezoid is parallel to the bases and has a length equal to half the sum of the lengths of the bases.

Chapter Review

In parallelogram $EFGH$, $m\angle EFG = 70$.

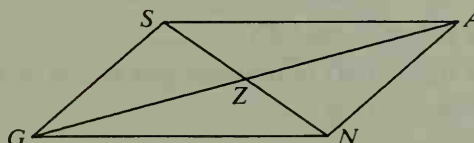
1. $m\angle HEF = \underline{\quad ? \quad}$
2. If $m\angle EFH = 32$, then $m\angle EHF = \underline{\quad ? \quad}$.
3. If $HQ = 14$, then $HF = \underline{\quad ? \quad}$.
4. If $EH = 8x - 7$ and $FG = 5x + 11$, then $x = \underline{\quad ? \quad}$.



5-1

In each exercise you could prove that quad. $SANG$ is a parallelogram if one more fact, in addition to those stated, were given. State that fact.

5. $GN = 9$; $NA = 5$; $SA = 9$
6. $\angle ASG \cong \angle GNA$
7. $\overline{SZ} \cong \overline{NZ}$
8. $\overline{SA} \parallel \overline{GN}$; $SA = 17$



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