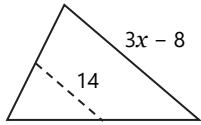


LESSON 85 Review: 2nd Quarter

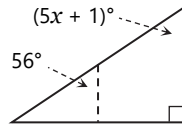
Let's review. Be sure to check the corresponding lesson(s) if you get any problem(s) wrong.

(Lessons 46 ~ 50) Find the value of x given the type of the dashed segment.

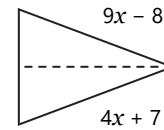
1. midsegment



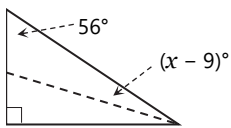
2. midsegment



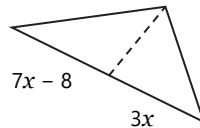
3. perpendicular bisector



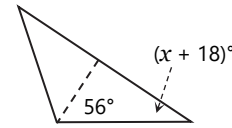
4. angle bisector



5. median

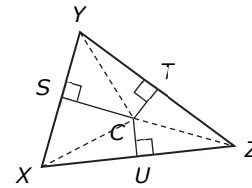


6. altitude



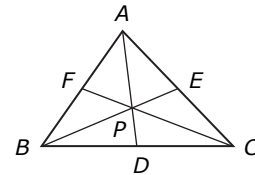
(Lesson 47) C is the circumcenter of $\triangle XYZ$.

7. What type of segment is \overline{SC} in $\triangle XYZ$?
8. Find YC and ZC if $XC = 10$.



(Lesson 49) P is the centroid of $\triangle ABC$.

9. What type of segment is \overline{AD} in $\triangle ABC$?
10. Find PE and BE if $BP = 12$.



(Lessons 52 & 53) Solve.

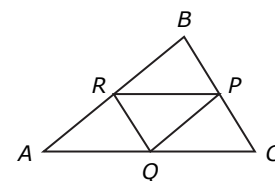
11. Can side lengths 4, 6, and 10 form a triangle? Explain.
12. A triangle has sides of lengths 3 and 5. How long can the third side be?
13. $\triangle ABC$ is a right triangle with $m\angle B = 90^\circ$ and $AB > BC$. Which angle is bigger, $\angle A$ or $\angle C$?

(Lesson 54) Write a proof using any format.

14. Given: \overline{PQ} , \overline{QR} , and \overline{PR} are midsegments of $\triangle ABC$.

Prove: perimeter of $\triangle PQR = \frac{1}{2}$ perimeter of $\triangle ABC$

Note: You could copy and fill in the table from Problem 6 in Lesson 54 if you are not taking the honors course.

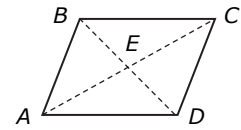


(Lessons 56 ~ 59) Solve.

15. Name all quadrilaterals whose opposite sides are congruent.
16. Name all quadrilaterals whose diagonals are congruent.
17. Name all quadrilaterals whose diagonals are perpendicular.

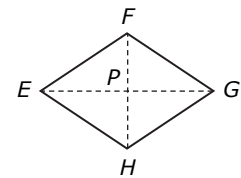
(Lesson 56) $ABCD$ is a parallelogram.

18. Find all four interior angles of $ABCD$ if $m\angle A = 70^\circ$.
19. Find x and y if $AB = 3x$, $CD = 2x + 18$, $AE = 5y$, and $AC = 7y + 30$.



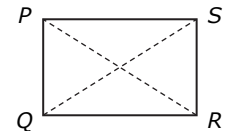
(Lesson 58) $EFGH$ is a rhombus.

20. Name all triangles congruent to $\triangle EPF$. Explain.
21. Find all four interior angles of $EFGH$ if $m\angle EFP = 56^\circ$.



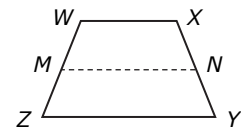
(Lesson 58) $PQRS$ is a rectangle.

22. Name all triangles congruent to $\triangle PQR$. Explain.
23. Find PR if $PR = x + 5$ and $QS = 3x - 7$.



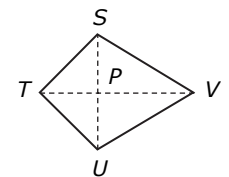
(Lesson 59) $WXYZ$ is an isosceles trapezoid with $\overline{WX} \parallel \overline{ZY}$. \overline{MN} is the midsegment.

24. Find all four interior angles of $WXYZ$ if $m\angle Z = 68^\circ$.
25. Find $m\angle WMN$ and $m\angle XNM$ if $m\angle Z = 68^\circ$.
26. Find MN if $WX = 15$ and $ZY = 27$.



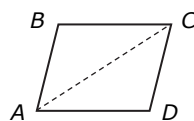
(Lesson 59) TUV is a kite with $\overline{TS} \cong \overline{TU}$ and $\overline{VS} \cong \overline{VU}$.

27. Find $m\angle S$ and $m\angle U$ if $m\angle STP = 45^\circ$ and $m\angle SVP = 30^\circ$.
28. Find $m\angle UTP$ and $m\angle UVP$ if $m\angle STP = 45^\circ$ and $m\angle SVP = 30^\circ$.



(Lesson 56) Write a proof of the Parallelogram Opposite Sides Theorem [56.1].

29. Given: $ABCD$ is a parallelogram.
Prove: $\overline{AB} \cong \overline{CD}$, $\overline{BC} \cong \overline{DA}$



Note: You could copy and fill in the table from Problem 15 in Lesson 56 if you are not taking the honors course.