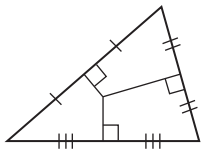
LESSON 133 Review: 2nd Quarter

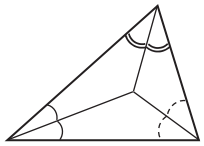
Let's review. Be sure to check the corresponding lesson(s) if you get any problem(s) wrong.

(Lesson 51) Identify the type of segments drawn in each triangle and their point of concurrency.

1.



2.



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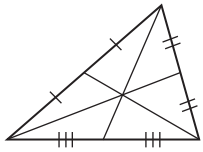
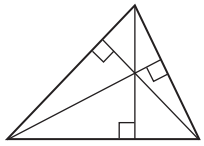
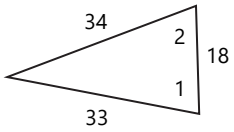


4.

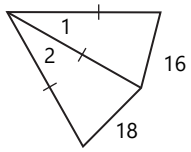


(Lesson 52 & 53) Compare ∠1 and ∠2.

5.

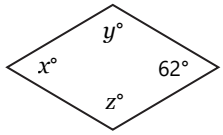


6.

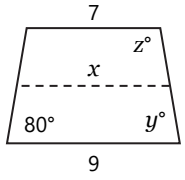


(Lessons 56 ~ 59) Find the values of the variables or the measures of the numbered angles.

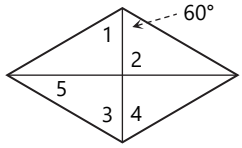
7. parallelogram



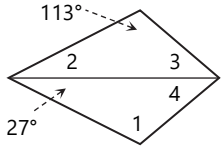
8. trapezoid with a midsegment



9. rhombus



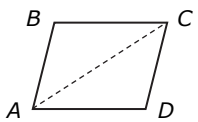
10. kite



(Lesson 57) Write a proof of the Parallelogram Opposite Sides Converse [57.1].

11. Given: $\overline{AB} \cong \overline{CD}, \overline{BC} \cong \overline{DA}$

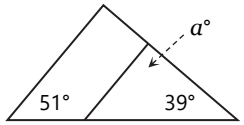
Prove: $ABCD$ is a parallelogram.



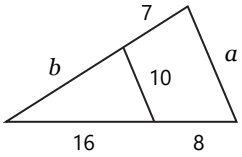
Note: You could copy and fill in the table from Problem 18 in Lesson 57 if you are not taking the honors course.

(Lessons 62 ~ 65) Each pair of triangles is similar. Find the values of the variables.

12.

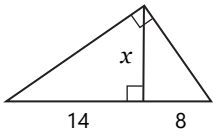


13.

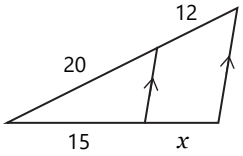


(Lessons 67 ~ 70) Find the value of x.

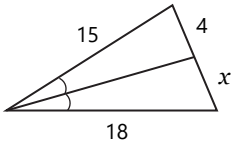
14.



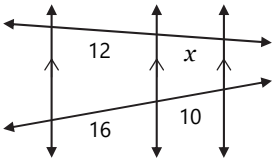
15.



16.

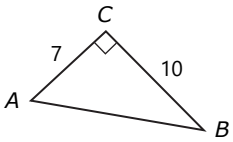


17.

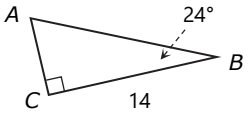


(Lesson 80) Solve each triangle. Round all calculations to the nearest tenth.

18.

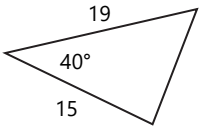


19.

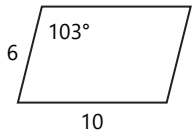


(Lesson 81) Find the area of each figure to the nearest tenth.

20.



21.



(Lessons 72 & 82) Solve. Round all calculations to the nearest tenth.

22. Ryker discovers that, when he stands 16 ft from a street lamp, his shadow is 8 ft long. Ryker is 5.2 ft tall. How tall is the street lamp?

23. Kim places a mirror on the ground 20 ft from a tree and stands 5 ft from the mirror where she can see the reflection of the top of the tree. Kim is 4 ft tall. How tall is the tree?

24. A lighthouse is 90 ft above the surface of the water. The angles of depression from the top of the lighthouse to two small fishing boats are 20° and 30°. The two boats are directly in line with, and on the same side of, the lighthouse. What is the distance between the two boats?