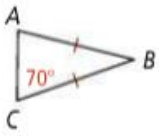
Day 2 – 4.5 p. 253 #2 – 4, 6 - 10, 12 – 13, 20, 28, 30

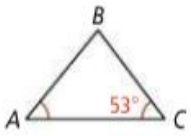
Do you know HOW?

1. What is $m\angle A$?

a.



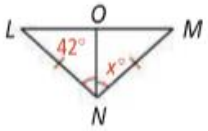
b.



2. What is the value of x?

a.

b.



3. The measure of one base angle of an isosceles triangle is 23. What are the measures of the other two angles?

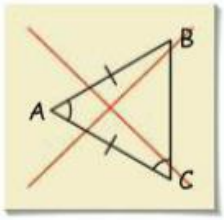
Do you UNDERSTAND? MATHEMATICAL PRACTICES

4. What is the relationship between sides and angles for each type of triangle?

a. isosceles

b. equilateral

5. Error Analysis Claudia drew an isosceles triangle. She asked Sue to mark it. Explain why the marking of the diagram is incorrect.



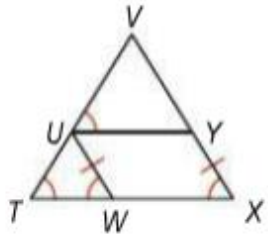
Complete each statement. Explain why it is true. See Problem 1.

6. $\overline{VT} \cong$?

7. $\overline{UT} \cong$? $\cong \overline{YX}$

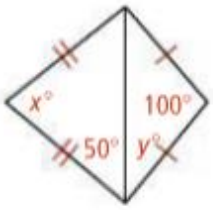
8. $\overline{VU} \cong$?

9. $\angle VYU \cong$?

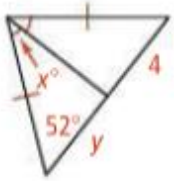


Algebra Find the values of x and y. See Problem 2.

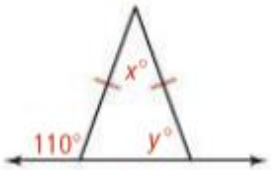
10.



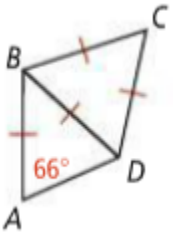
11.



12.



13. An equilateral triangle and an isosceles triangle share a common side. What is the measure of $\angle ABC$?



14. Architecture Each face of the Great Pyramid at Giza is an isosceles triangle with a 76° vertex angle. What are the measures of the base angles?

20. Think About a Plan A triangle has angle measures $x + 15$, $3x - 35$, and $4x$. What type of triangle is it? Be as specific as possible. Justify your answer.

- What do you know about the sum of the angle measures of a triangle?
- What do you need to know to classify a triangle?
- What type of triangle has no congruent angles? Two congruent angles? Three congruent angles?

28. Algebra The length of the base of an isosceles triangle is x. The length of a leg is $2x - 5$. The perimeter of the triangle is 20. Find x.

30.