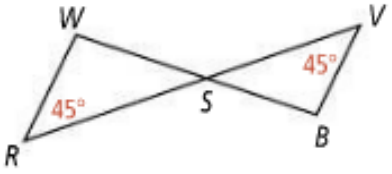
Name:_____ Date: _____
Geometry Band: _____

June 2015 Practice PBA

Unit 6: Similarity

Are the two triangles similar? How do you know?

1.



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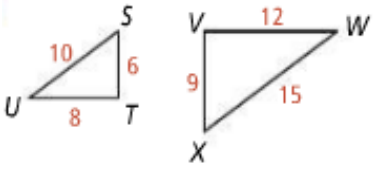

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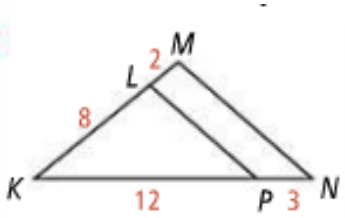
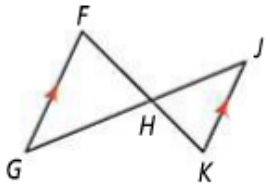


4. Given: $\overline{FG} \parallel \overline{KJ}$
Prove: $\Delta FGH \sim \Delta KJH$



Unit 7: Right Triangles & Trigonometry

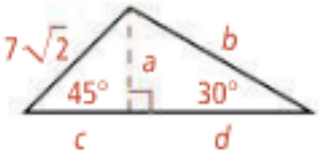
The lengths of the sides of a triangle are given. Classify each triangle as *acute, right,* or *obtuse*.

5. 6, 11, and 14

6. 7, 8, and 9

Find the value of each variable. If your answer is not an integer, express it in simplest radical form.

7.



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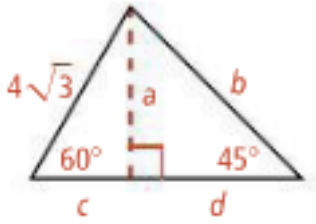

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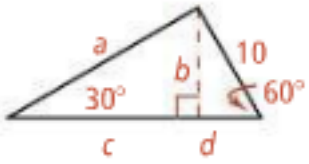
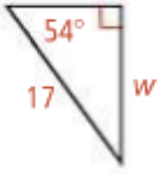


Find the value of *w* to the nearest tenth.

10.



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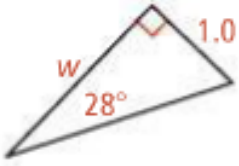

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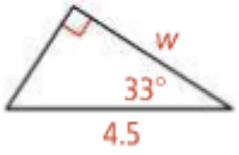
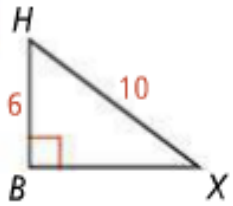


What is $m\angle X$ to the nearest degree?

13.



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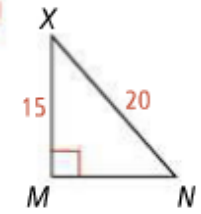
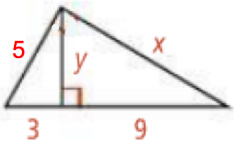


Find the value of each variable. If your answer is not an integer, express it in simplest radical form.

15.



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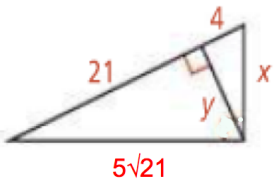

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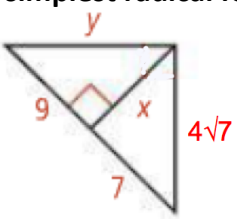
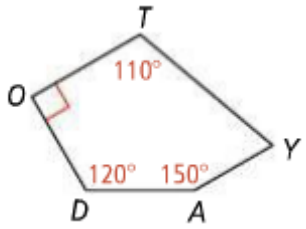
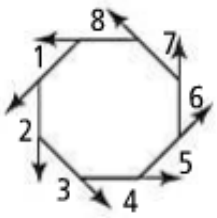


Unit 8: Polygons & Quadrilaterals

18. What is the $m\angle Y$ in pentagon $TODAY$?



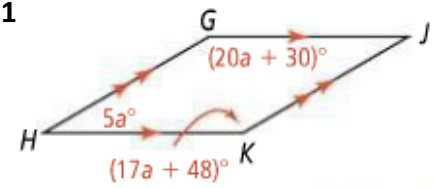
19. What is $m\angle 1$ in the regular octagon at the right?



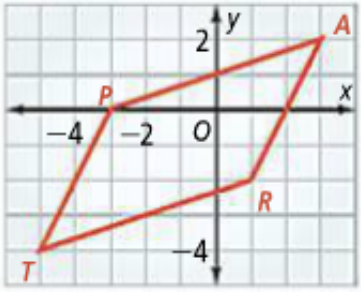
20. The interior angle measure of a regular polygon is $140°$. What is the measure of an exterior angle? How many sides does the polygon have?

Find the value of a. Then find each side length of angle measure.

21



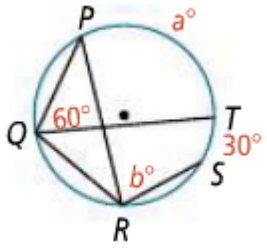
22. Prove that Quadrilateral $PART$ is a parallelogram using coordinate geometry. Show all of your computational work.



Unit 9: Circles

Find the value of each variable. For each circle, the dot represents the center.

23.



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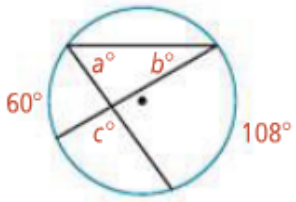
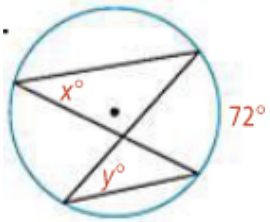
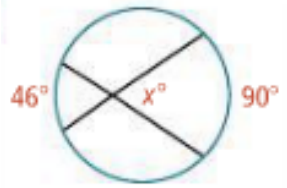


25.



Find the value of each variable.

26.



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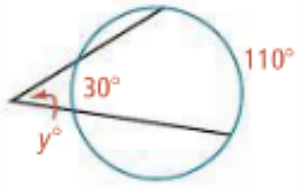

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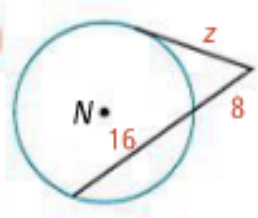

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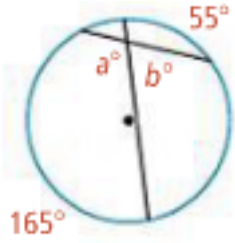
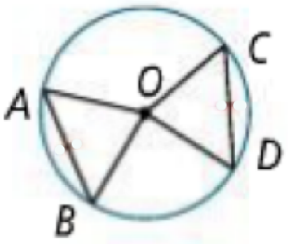


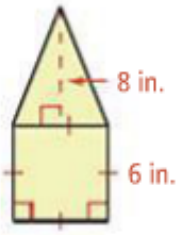
30. Given: $\odot O$ with arcs $AB \cong CD$
Prove: $\Delta AOB \cong \Delta COD$



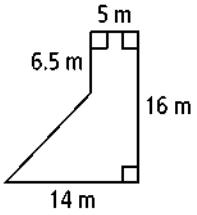
Unit 10: Area

What is the area of each polygon?

31.



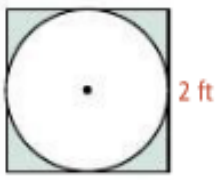
32.



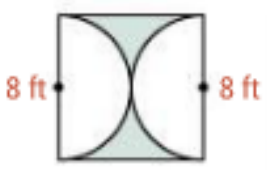
33. One base of a trapezoid is twice the other. The height is 18 cm. The area is 324 cm^2. Find the lengths of the two bases.

Find the area of the shaded region, Leave your answer in terms of π and in simplest radical form.

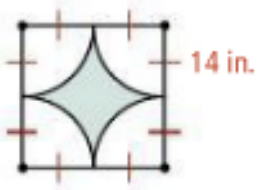
34.



35.



36.



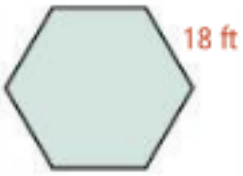
37. A honeycomb is made up of regular hexagonal cells. The length of a side of a cell is 3 mm. What is the area of the cell?

Find the area of each regular polygon. Round your answer to the nearest tenth.

38.

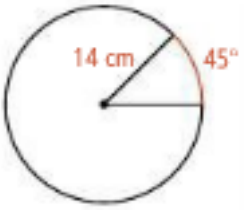
39.

40.



Find the length of each arc shown in red. Leave your answer in terms of π.

41.



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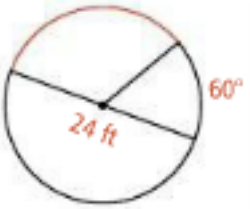

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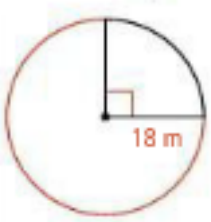

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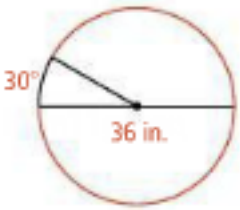

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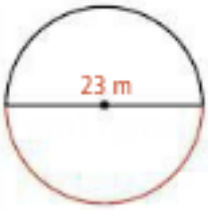

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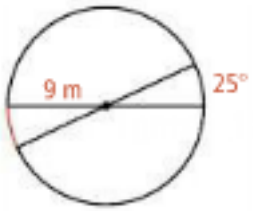
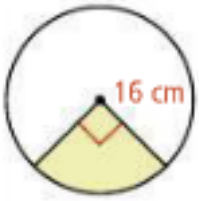


Find the area of each shaded sector of a circle. Leave your answer in terms of π.

47.

48.



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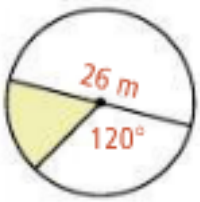
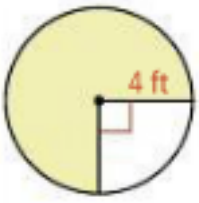


50.

51.



52.