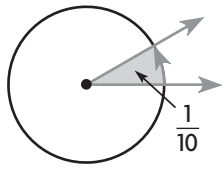
1. An angle represents $\frac{1}{10}$ of a circle. Use the numbers to show how to find the measure of the angle in degrees.



$$\frac{1}{10} = \frac{1 \times \square}{10 \times \square} = \frac{\square}{360}$$

24

30

36

The angle measure is _____.

2. Match the measure of each $\angle R$ with the measure of $\angle S$ that forms a right angle.

$\angle R$	$\angle S$
25° •	• 65°
	• 75°
44° •	• 39°
51° •	• 58°
	• 46°
38° •	• 52°

3. Alejandro drew an acute angle. Which could be the measure of the angle he drew? Mark all that apply.

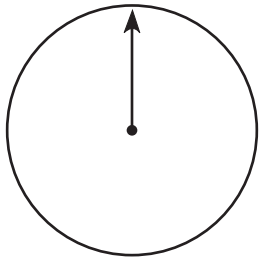
Ⓐ 60°

Ⓑ 12°

Ⓒ 97°

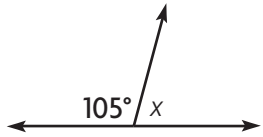
Ⓓ 90°

4. Draw an angle that represents a $\frac{3}{4}$ turn clockwise on the circle.



GO ON

5. Nina drew the figure shown. For 5a–5c, select Yes or No to tell whether the statement is true.

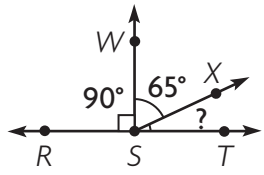


5a. The measure of a straight angle is 360°. ○ Yes ○ No

5b. To find the measure of *x*, Nina can subtract 105° from 360°. ○ Yes ○ No

5c. The measure of *x* is 75°. ○ Yes ○ No

6. Kayla drew this figure with a protractor.



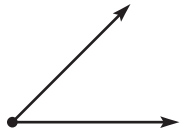
Part A

Write an equation that can be used to find the m$\angle XST$.

Part B

What is the measure of $\angle XST$? Describe how you solved the equation and how you can check your answer.

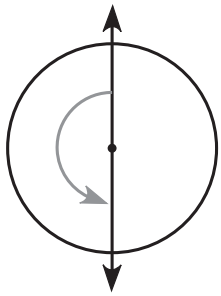
7. Use a protractor to find the measure of the angle.



The angle measures _____.

GO ON

8. Paula drew this angle on the circle. Which describes the angle? Mark all that apply.



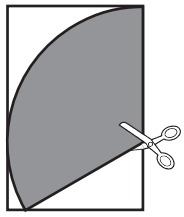
Ⓐ $\frac{1}{2}$ turn

Ⓑ $\frac{1}{4}$ turn

Ⓒ clockwise

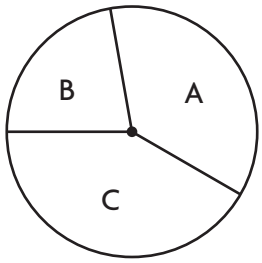
Ⓓ counterclockwise

9. Marla has a piece of felt that is $\frac{1}{3}$ of a large circle. She cuts the piece of felt in half from the center point of the circle. What is the angle measure of each part?



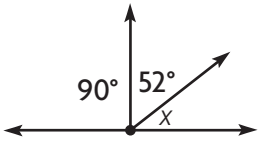
The angle measures _____.

10. Use a protractor to find the measure of each angle. Write each angle and its measure in a box ordered by the measure of the angles from least to greatest.



Angle: Measure:	Angle: Measure:	Angle: Measure:

11. Use the numbers and symbols to write an equation that can be used to find the measure of the unknown angle.

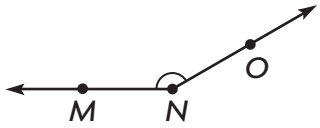


52	90	180	360
x	$=$	$+$	$\times$

What is the measure of the unknown angle? _____

GO ON

12. Choose the word and angle measure to complete a true statement about $\angle MNO$.



$\angle MNO$ is a(n) [acute / obtuse / right] angle that has a measure of [30° / 120° / 150°].

13. Rachael began walking her dog at 3:00 P.M. She stopped at 3:30 P.M. How many degrees did the minute hand turn during Rachael's walk? Explain how you found your answer.

14. An angle measures 51°. Through what fraction of a circle does the angle turn?

$\frac{\square}{\square}$ of a circle

GO ON

15. Write the letter for each angle measure in the correct box.

Ⓐ 20° Ⓑ 77° Ⓒ 111° Ⓓ 180° Ⓔ 175° Ⓕ 90°

acute	obtuse	right	straight

16. For numbers 16a–16b, select the fraction that makes a true statement about the figure.

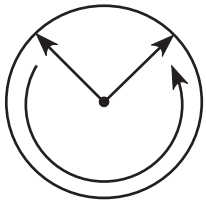


Figure 1

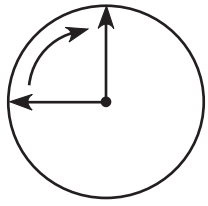
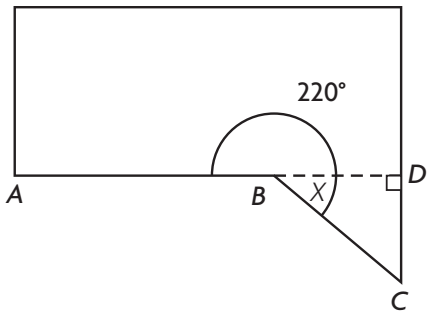


Figure 2

16a. The angle in Figure 1 represents a $\frac{1}{4}$ / $\frac{1}{2}$ / $\frac{3}{4}$ turn.

16b. The angle in Figure 2 represents a $\frac{1}{4}$ / $\frac{1}{2}$ / $\frac{3}{4}$ turn.

17. Jeffrey cuts a rectangle out of a piece of scrap paper as shown. He wants to calculate the angle measure of the piece that is left over.



Part A

Draw a bar model to represent the problem.

Part B

Write and solve an equation to find x.

The angle measures _____.

GO ON

18. Two angles, $\angle M$ and $\angle N$, form a straight angle. $\angle M$ measures 50°. For numbers 18a–18c, select True or False for the statement.

18a. $\angle N$ is an acute angle. ○ True ○ False

18b. The equation $180° - 50° = x°$ can be used to find the measure of $\angle N$. ○ True ○ False

18c. The measure of $\angle N$ is 130°. ○ True ○ False

19. A circle is divided into parts. Which sum could represent the angle measures that make up the circle? Mark all that apply.

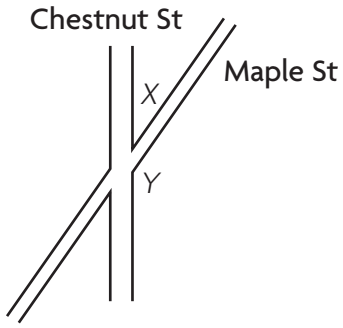
Ⓐ $120° + 120° + 120°$

Ⓑ $47° + 61° + 78° + 83° + 101°$

Ⓒ $15° + 40° + 53° + 62° + 90° + 100°$

Ⓓ $20° + 30° + 60° + 70°$

20. Use a protractor to find the measures of the unknown angles.



$m\angle X =$ _____ $m\angle Y =$ _____

What do you notice about the measures of the unknown angles? Is this what you would have expected? Explain your reasoning.