

Name _____

1. Circle all shapes that show an angle that equals 90° .



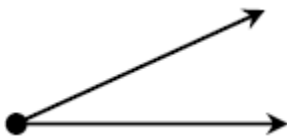
2. Circle all shapes that show an angle that is less than 90° .



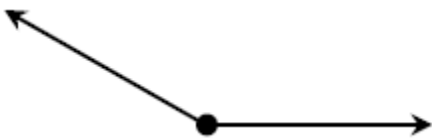
3. Circle all shapes that show an obtuse angle.



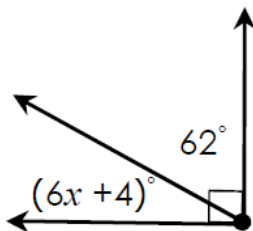
4. Using a protractor, what is the measure of the angle?



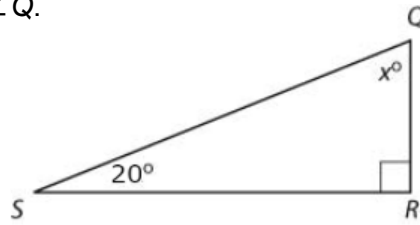
5. Using a protractor, what is the measure of the angle?



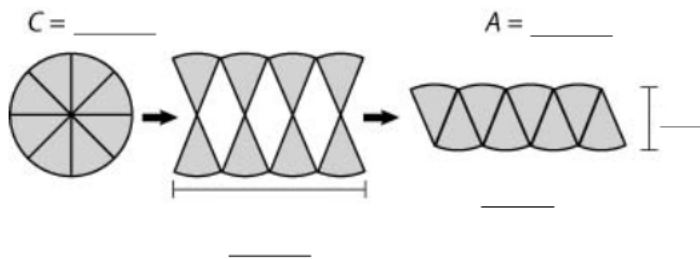
6. Solve for x .



7. In $\triangle QRS$, $\angle R$ is a right angle and the measure of $\angle S$ is 20° . Write an equation that can be used to calculate the measure of $\angle Q$.



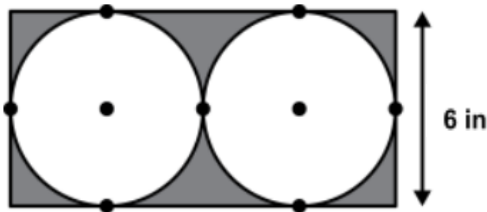
8. The figure shows how the formula for the circumference of a circle may be used to derive the formula for the AREA of a circle. Based on the figure, what formula represents the area of the circle?



9. Evie measured the circumference of a circle. Which steps can she follow to find the area of the circle? Fill in the blanks.

_____ the circumference by π to find the diameter. _____ the diameter by 2 to find the _____. Use the radius in the formula $A =$ _____ to find the area.

10. Two circles inscribed in a rectangle are shown.



What is the approximate area, in square inches, of the shaded region outside the circles? ($\pi \approx 3.14$)

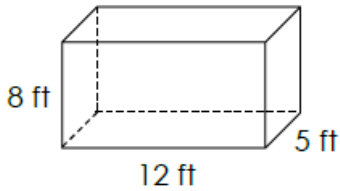
square inches

11. The diameter at the thickest part of a doorknob is 4 inches. Write an equation that expresses the circumference of this doorknob at the thickest part in inches?

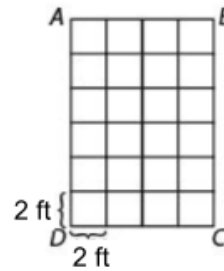
$C =$ _____

12. Maria bought a swimming pool with a circumference of 22 feet. She wants to buy a cover for her pool. What is the approximate size of the cover that Maria will need to buy? Round your answer to the nearest hundredth. Use 3.14 for π .

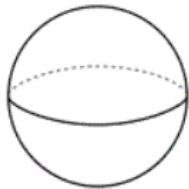
13. Calculate the surface area of the object below:



14. Jaylen tiled his bathroom with 2 ft by 2 ft square tiles. Figure *ABCD* shows the 24 tiles he used. What is the area of figure *ABCD*?



15. This is a sphere.



What figure that can be formed by a slice through the sphere?

16. Consider this cylinder.

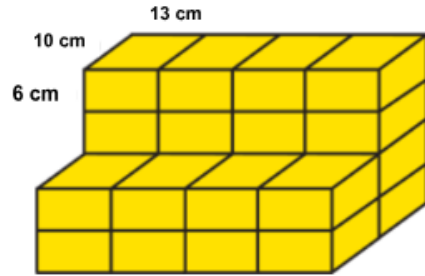


List the result of each cut below.

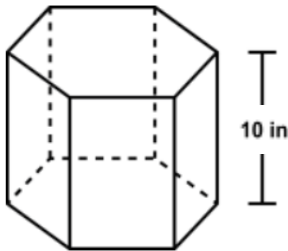
Cut: Parallel Result: _____

Cut: Perpendicular Result: _____

17. The object below is made of twenty-four rectangular prisms, each with dimensions of 6 centimeters (cm) by 10 cm by 13 cm. What is the volume, in cubic centimeters, of the object?



18. A local aquarium store designs a fish tank in the shape of a regular hexagonal prism, as shown in the diagram. The volume of the tank is 680 cubic inches. What is the area of the hexagonal base of the fish tank, in square inches?



A = _____ sq in

19. The owner of a grocery store displayed the sign below.

# of Trees	# of Apples
2	26
3	39
6	78
10	130
12	146

Are the number of apples and trees in a proportional relationship? Explain why or why not. Use numbers or words to explain your answer.

20. What is the simplified version of $8x - 4(x - 8) = 56$?

21. Simplify: $3(-3x - 6)$

22. Tia takes \$40 from her bank account to pay for bus fare for the month. She does this each month for 7 months in a row. Write an equation that models this situation and represents the change it causes in Tia's bank balance.

23. Simplify the inequality $-10(x - 1) < 13$. Do NOT solve.

24. Marissa found a shirt that had a 25% markdown on it. If the price of the shirt is represented by x , how much does the shirt cost (excluding tax)? Select all that apply.

A. $0.25x$

B. $0.75x$

C. $x - 0.25$

D. $x - 0.75x$

E. $x(0.25 + 1.00)$

F. $x(1.00 - 0.25)$

25. Billy made a graph that represents the amount of money he earns, y , for the numbers of hours he works, x . The graph is a straight line that passes through the origin and the point (1, 18). How much does he earn per hour?

What would be the slope of the graph?