

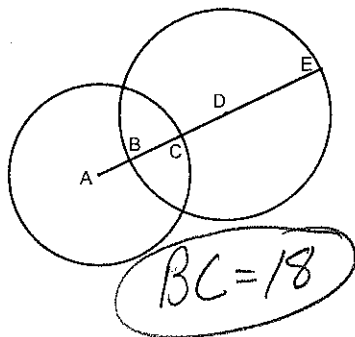
NAME: Answers

Geometry Term 4 Review Day 1

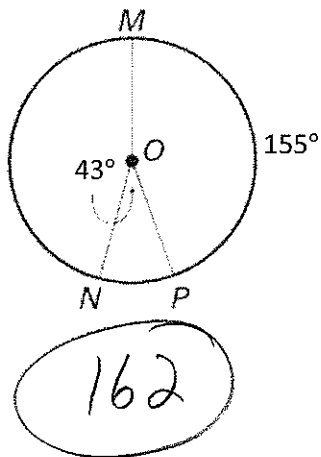
1. A certain circular rug has a diameter of 22 ft. Find the circumference of the rug. $C = 2\pi r$

69.115 ft

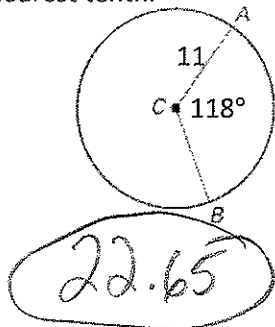
2. The diameter of $\odot D$ is 100 units, the diameter of $\odot A$ is 62 units, and $CD = 32$ units. Find BC .



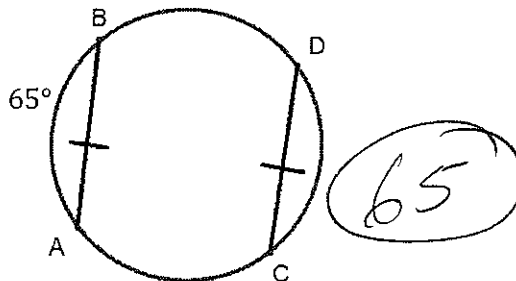
3. Find the measure of $m\widehat{MN}$.



4. Find the length of \widehat{AB} . Round to the nearest tenth.

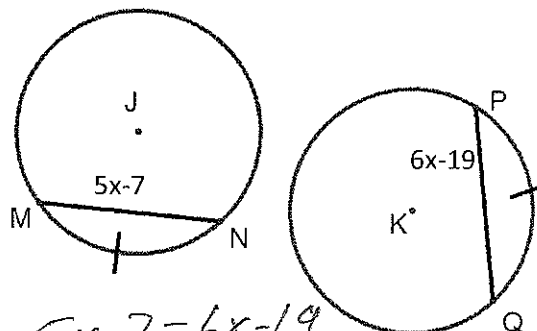


5. In the circle below, $\overline{AB} \cong \overline{CD}$ and $m\widehat{AB} = 65^\circ$. Find $m\widehat{CD}$.



6. In the figures, $\odot J \cong \odot K$ and

$m\widehat{MN} \cong m\widehat{PQ}$. Find PQ .



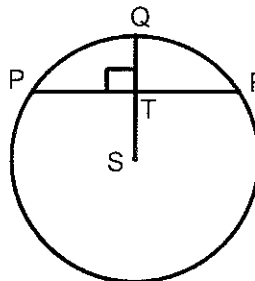
$$\begin{aligned} 5x-7 &= 6x-19 \\ -5x & \quad -5x \\ x &= 12 \end{aligned}$$

$$\begin{aligned} 6(12) - 19 \\ 72 - 19 \end{aligned}$$

7. In $\odot S$, $m\widehat{PQR} = 76^\circ$.

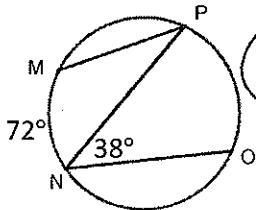
Find $m\widehat{PQ}$.

$PQ = 53$



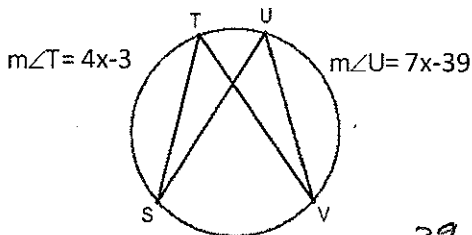
38

8. Find $m\widehat{PO}$.



$PO = 76$

9. Find $m\angle T$.



$$4x - 3 = 7x - 39$$

$$-4x \quad -4x$$

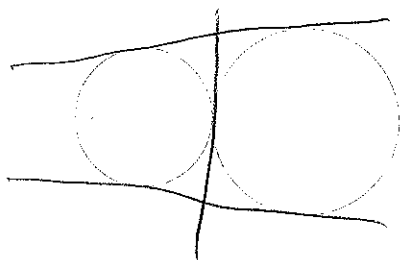
$$-3 = 3x - 39$$

$$+39 \quad +39$$

$$\frac{36}{3} = \frac{3x}{3}$$

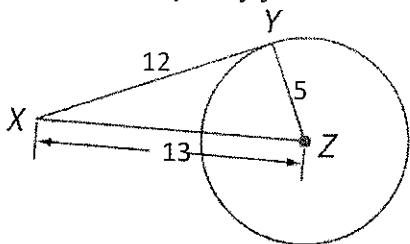
$x = 12$
 $\angle T = 4(12) - 3$
 $\angle T = 45$

10. How many common tangents do the circles have? If no common tangent exists, state *no common tangent*.



3

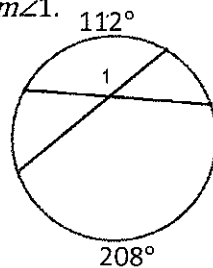
11. Determine whether \overline{XY} is tangent to the circle. Justify your answer.



$169 = 169$

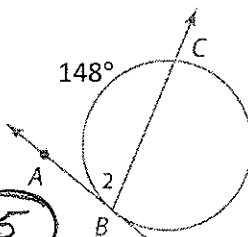
yes

12. Find $m\angle 1$.



160

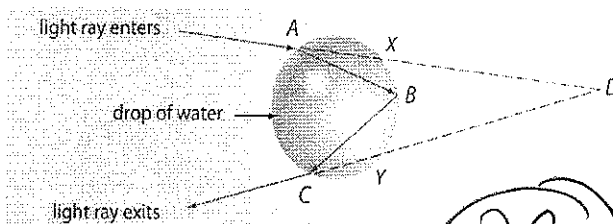
13. Find $m\angle 2$, where the given line is tangent to the circle.



$\angle T = 45$

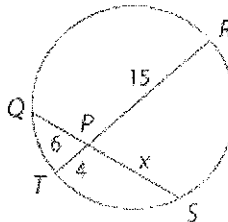
74

14. The diagram shows the path of a light ray as it hits a drop of water. The ray is bent, or refracted, at points A, B, and C. If $m\widehat{AC} = 142^\circ$ and $m\angle XBY = 84^\circ$, what is $m\angle D$?



29

15. Find the value of x.

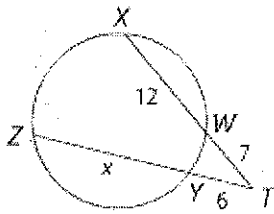


$6x = 60$

$\frac{6x}{6} = \frac{60}{6}$

$x = 10$

16. Find the value of x.



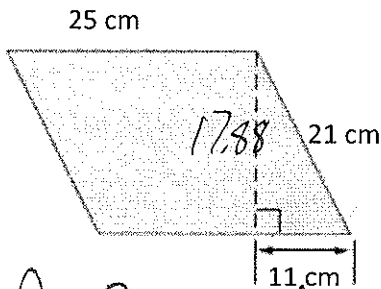
$$6(6+x) = 7(19)$$

$$36 + 6x = 133$$

$$\begin{array}{r} 36 + 6x = 133 \\ -36 \quad -36 \\ \hline 6x = 97 \\ \frac{6x}{6} = \frac{97}{6} \end{array}$$

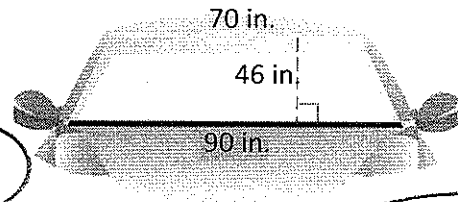
$x = 16.16$

17. Find the perimeter and area of the parallelogram.



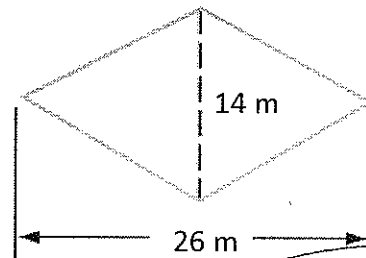
$P = 92 \text{ cm}$ $A = 447.2 \text{ cm}^2$

19. Find the area of glass used to make the windshield of a van shown.



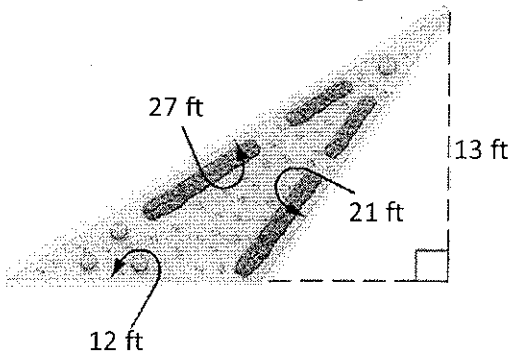
3680 in^2

20. Find the area of the rhombus.



182 m^2

18. Frank needs enough mulch to cover the triangular garden shown. If one bag of mulch covers 12 square feet, how many bags of mulch does he need to buy?

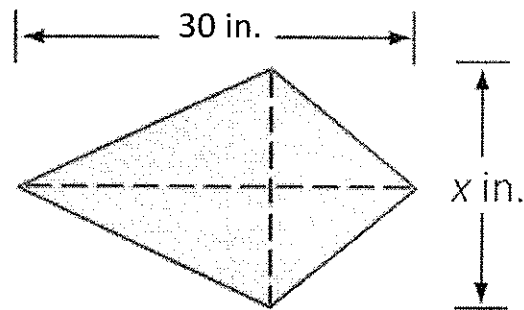


$A = 78$

6.5 bags

21. Find x, given the area of the kite.

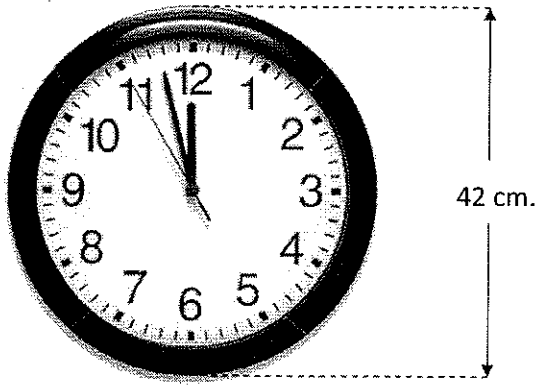
Area = 330 in^2



$$330 = \frac{30(x)}{2}$$

$x = 22 \text{ in}$

22. Find the area of the circle.



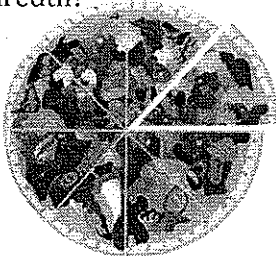
$$1385.44 \text{ cm}^2$$

23. Find the radius of a circle with an area of 119 square centimeters.

$$119 = \pi r^2$$

$$r = 6.15 \text{ cm}$$

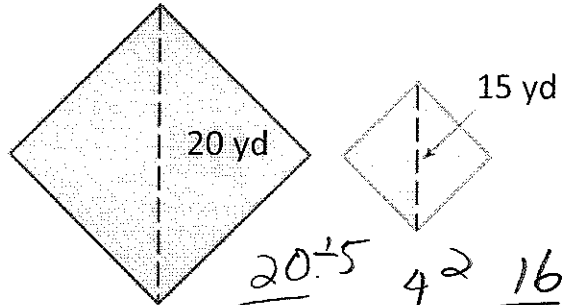
24. A circular pizza has a diameter of 370 mm and is cut into 8 congruent slices. What is the area of one slice to the nearest hundredth?



$$\frac{1}{8} \pi 185^2$$

$$13440.12 \text{ mm}^2$$

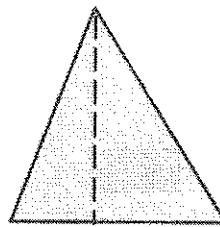
25. If the two figures are similar, and the area of the figure on the left is 176 yd^2 , then find the area of the figure on the right.



$$\frac{20^2}{15^2} = \frac{400}{225} = \frac{16}{9} = \frac{176}{x}$$

$$x = 99 \text{ yd}^2$$

26. The pair of figures are similar. Use the given areas to find the scale factor from the left figure to the right figure.



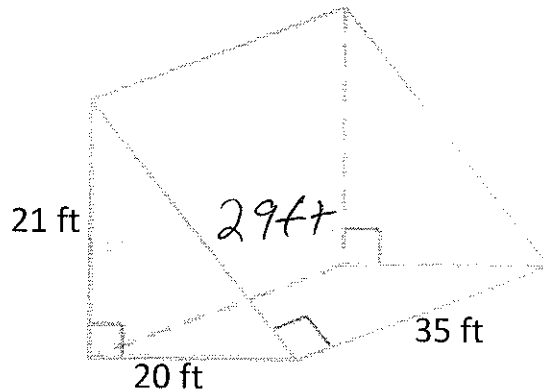
$$A = 441 \text{ cm}^2$$



$$A = 36 \text{ cm}^2$$

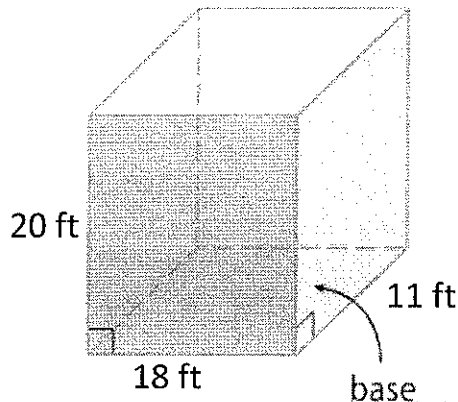
$$\sqrt{\frac{441}{36}} = \frac{21}{6} = \frac{7}{2}$$

27. Find the lateral area of the prism. Round to the nearest tenth.



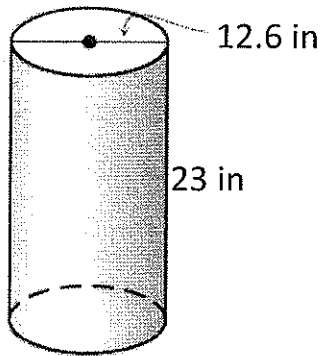
$$2450 \text{ ft}^2$$

28. Find the surface area of the rectangular prism.



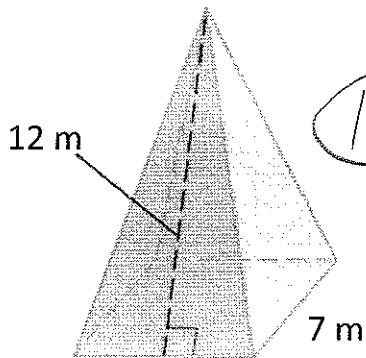
1556 ft^2

29. Find the surface area of the cylinder with a diameter of 12.6 in.



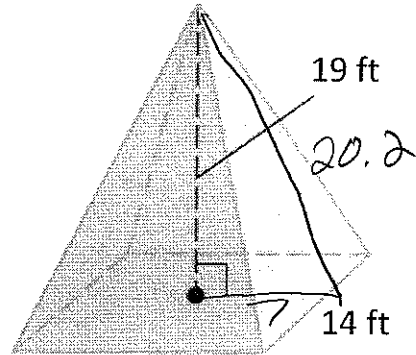
1159.81 in^2

30. Find the lateral area of the square pyramid.



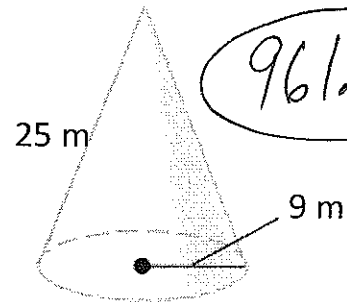
168 m^2

31. Find the surface area of the square pyramid.



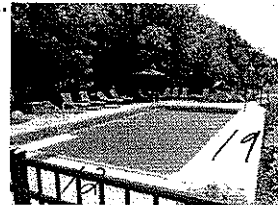
761.6 ft^2

32. Find the surface area of a cone with a radius of 9 meters and a slant height of 25 meters.



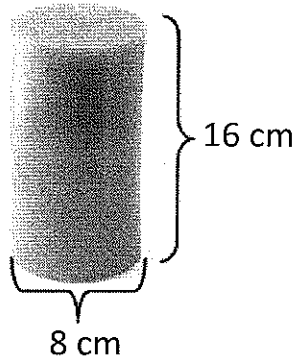
961.33 m^2

33. A rectangular swimming pool is 19 yards long, 12 yards wide, and 2 yards deep. Find the volume of the pool.



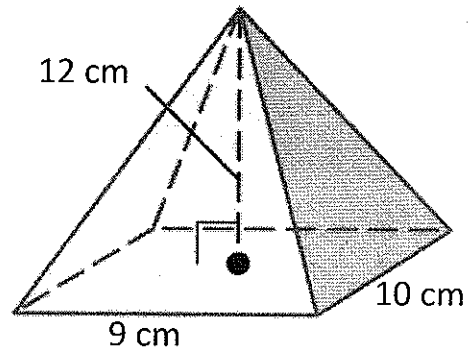
456 yd^3

34. Find the volume of cylindrical candle with a height of 16 cm and a diameter of 8 cm.



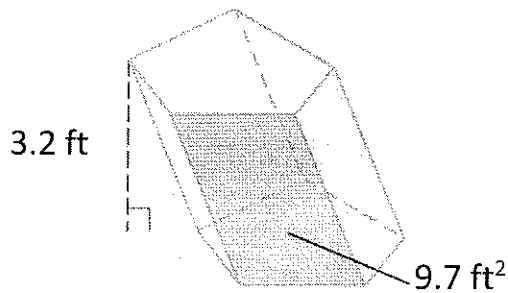
$$804.25 \text{ cm}^3$$

36. Find the volume of the pyramid.



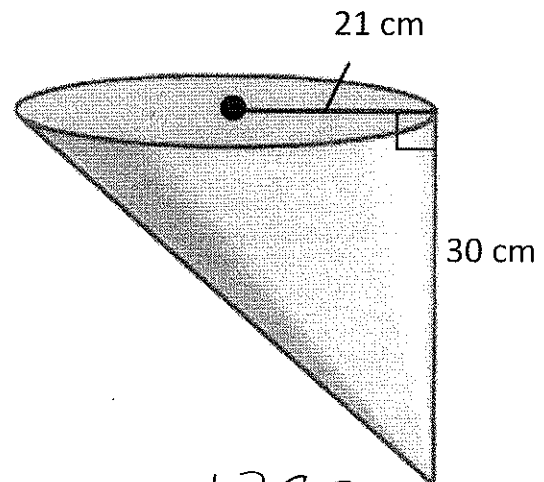
$$360 \text{ cm}^3$$

35. Find the volume of an oblique pentagonal prism if the height is 3.2 ft and the base area is 9.7 ft².



$$31.04 \text{ ft}^3$$

37. Find the volume of the cone.

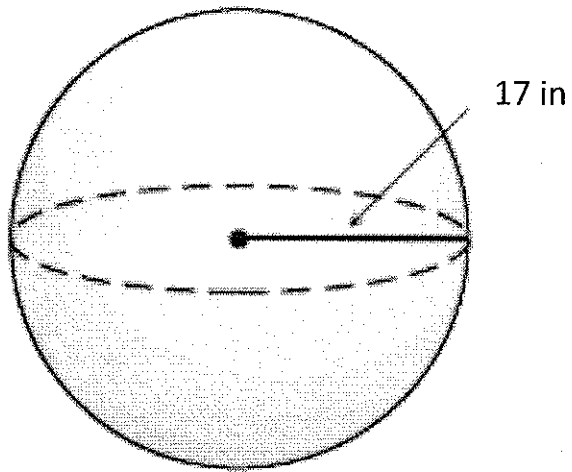


$$13854.42 \text{ cm}^3$$

38. In Egypt, there exists a pyramid which is 722 feet along one side of its **square** base and is 390 feet tall. Find its volume.

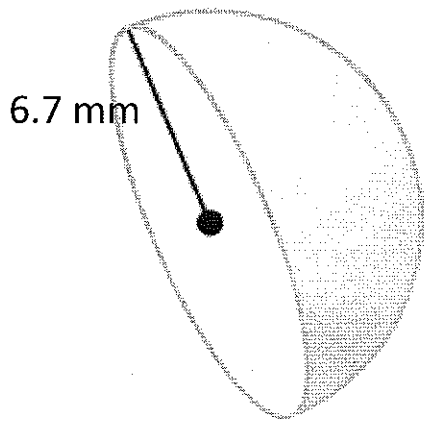
$$67,766,920 \text{ ft}^3$$

39. Find the surface area of the sphere.
Round to the nearest tenth.



$$3631.68 \text{ in}^2$$

40. Find the volume of the hemisphere.
Round to the nearest tenth.



$$629.92 \text{ mm}^3$$