$\qquad$ Date $\qquad$

| Topic |
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| Use the properties of congruent chords to find the measures of chords and arcs. | If two chords are congruent then their arcs are congruent | 9. Find the value of KM. | 10. Find the $m Y Z$ if $m X W=95^{\circ}$. |
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| Determine if two chords are congruent | Two chords are congruent if they are equidistant from the center of the circle | 11. Are $\overline{J K}$ and $\overline{M L}$ congruent? | 12. Are $\overline{T Q}$ and $\overline{U Q}$ congruent? |
| Use the properties of congruent chords to find the measure of arcs and segments | Two chords are congruent if and only if they are equidistant from the center of the circle. | 13. Find the measure of $Y X$. | 14. Find the measure of GF. |
| Determine if a chord is a diameter. | To be a diameter the chord must be a perpendicular bisector of another chord. | 15. Is $\overline{Q S}$ a diameter? Why or why not? | 16. Is $\overline{Q S}$ a diameter? Why or why not? |


| Use the properties of diameters and perpendicular chords to find the radius of a circle. | Set up the problem so that you can use Pythagorean theorem. | 17. A chord in a circle is 18 cm long and is 5 cm from the center of the circle. How long is the radius of the circle? | 18. The radius of a circle is 15 inches. A chord is drawn 4 inches from the center of the circle. How long is the chord? |
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| Use properties of tangents to determine if the line is a tangent | You must satisfy the Pythagorean Theorem. | 19. Is $\overline{A B}$ a tangent? Why or why not? | 20. Is $\overline{A B}$ a tangent? Why or why not? |
| Use properties of tangents to find missing measures. | Pythagorean Theorem | 21. Find the measure of x. | 22. Find the value of $x$. |
| Find the surface area of spheres. | $S=4 \pi r^{2}$ | 23. Find the surface area of the sphere. | 24. What is the diameter of a sphere with a surface area of $44 \pi \mathrm{~cm}^{2}$ ? |


| Find the volume of spheres. | $V=\frac{4}{3} \pi r^{3}$ | 25. A beach ball has a diameter of 8 inches. Find its volume. | 26. Find the volume of the hemisphere. |
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| Find the volume of prisms and cylinders. | $V=B h$ <br> (where $B$ is the area of the base) | 27. Find the volume. | 28. Find the volumer <br> 20 in |
|  | $\begin{gathered} \text { A }_{\text {Rectangle }}=\mathrm{bh} \\ \text { Acircle }=\pi r^{2} \\ \text { ATriangle }=1 / 2 \mathrm{bh} \\ \mathrm{~A}_{\text {Trapezoid }} \\ 1 / 2\left(\mathrm{~b}_{1}+\mathrm{b}_{2}\right) \mathrm{h} \end{gathered}$ | 29. Find the volume. | 30. Find the volume. |
| Find the volume of pyramids and cones. | $V=1 / 3 \mathrm{Bh}$ | 31. Find the volume. |  |
| Find the shape of the crosssection of a 3D figure. | When cutting a 3D figure by a plane, the result is a 2D figure. | 33. Name the cross-section. | 34. Name the cross-section. |

