| 1. The side lengths of the original figure in the diagram are dilated by a scale factor of $1 / 4$. The perimeter of the original figure is how many times larger than the new figure? | 2. The side lengths of the figure in the diagram are dilated by a scale factor of $1 / 2$. What is the perimeter of the resulting figure? <br> 32 <br> 14 $\square$ |
| :---: | :---: |
| 3. The side lengths of the figure in the diagram are dilated by a scale factor of 3 . What is the area of the resulting figure? <br> 10 <br> 4 | 4. Will the following side lengths, 20 feet, 16 feet and 3 feet form a triangle? Yes or No. |
| 5. Will the following side lengths, 12 feet, 8 feet and 13 feet form a triangle? Yes or No. | 6. If $\angle S R Q$ is $106^{\circ}$, what is the measure of $\angle S R P$ ? |
| 7. The area of the triangle below is $30 \mathrm{~cm}^{2}$. What is the length of $a$ ? | 8. The King family is putting a concrete patio around their pool. The shaded region below shows the area that will be covered with concrete. How much concrete will be needed? |


| 9. $\angle \mathrm{N}$ and $\angle \mathrm{M}$ are vertical angles. If $\angle N=54^{\circ}$, and $\angle M$ is represented by the expression $4 x-6$, what is the value of $x$ ? | 10. What does the 3rd side need to be to form an isosceles triangle? $23 \mathrm{~m}, 27 \mathrm{~m}$, $\qquad$ |
| :---: | :---: |
| 11. The area of the cookie is approximately $28 \mathrm{in}^{2}$. What is the best estimate of the radius? $5 \mathrm{in}, 4 \mathrm{in}$, or 3 in | 12. A jar has a radius of 2 in and a height of 9 in. How much jam can fit in the jar? |
| 13. A cube has side lengths of 8 cm . How much paint would be needed to cover the cube? | 14. A cube has side lengths of 8 cm . How much sand would be needed to fill the cube? |
| 15. The circumference of a circle is 110 ft . What is the approximate radius of the circle? | 16. The window is in the shape of a square and a half circle. What is the approximate area of the window? 8 ft |


| 199.39 | $46^{\text {B }}$ |
| :---: | :---: |
| 384 | YESS |
| 89.12 | 23 |
| 74 | H 4 |
| $51^{\prime} 2$ | $15^{\text {J }}$ |
| 113.04 | NOº |
| 17.5 | $\stackrel{N}{3}$ |
| $5^{\circ}$ | $36^{p} 0$ |

