1. The circumference of a circle is 57.148 cm . What is length of the radius rounded to the nearest centimeter?
2. The Jones family is adding a rectangular swimming pool to their backyard. The blueprint of the pool measures $7 \mathrm{in} . \times 9 \mathrm{in}$. The scale of the blueprint is $1 \mathrm{in} .=3.75$ feet. What are the actual dimensions of the pool?
3. Jonathan built a scale model of his house. He built the model 8 inches tall to represent the actual height of 19 feet. Write an equation that represents the relationship between the actual height, $a$, in feet, and the height of the model, $m$, inches?
4. A sweater at Target costs $\$ 32$. After tax the sweater is $\$ 28.14$. What is the sales tax rate?
5. There are three colors of marbles in the bag: red, green, and yellow. If the probability of getting a red was $\frac{2}{7}$ and the probability of getting a green was $\frac{3}{5}$, what is the probability (in fraction form) of getting yellow?
6. Simplify $-\frac{3}{9}(24 x-6)-(4 x-9)$
7. Betty mixed $1 \frac{3}{4}$ gallons of yellow paint with $\frac{1}{2}$ gallons of blue paint to make green paint for her treehouse. She ran out of green and needs to make more. If she uses 6 gallons of blue paint, to keep the same ratio, how much yellow paint should Betty use?
8. Caleb has a job at the grocery store. He earns $\$ 7.50$ an hour for bagging groceries and $\$ 3.75$ an hour for returning carts. Last night, he bagged groceries for 3 hours and returned carts for 1.5 hours. How much money did Jeff make last night?
9. Solve for $x$. $\frac{x+8}{-4}=-21$
10. If $\angle a b d$ is $47^{\circ}$, what is the measure of $\angle c b d$ ?

11. Aarav spent $\$ 32$ to take his girlfriend to the movies. He spent $60 \%$ on snacks and the remainder was spent on the two tickets. How much was each ticket?
12. The chart below shows how long Alexis spent on homework the last two weeks, in minutes. What is the approximate difference in each week's average?

|  | Mon | Tue | Wed | Th |
| :--- | :--- | :--- | :--- | :--- |
| Week 1 | 32 | 25 | 26 | 42 |
| Week 2 | 25 | 32 | 26 | 34 |

13. On a set of blueprints for a new home, the contractor has established a scale that states $\frac{1}{4}$ inch = 6 feet. What is the actual width of the living room whose distance is $1 \frac{3}{4}$ inch on the blueprints?
14. Simplify. Write your answer as a decimal. $-4\left[2^{4}+\left(\frac{3}{4}\right)^{3}\right]$
15. Two stores have headphones on sale. Store $A$ has the headphones on sale for $30 \%$ off the original price of $\$ 159.99$. Store B has the headphones on sale for $25 \%$ off the original price of $\$ 130.50$. What's the difference in the sale prices?
16. Julie bought 3.25 pounds of apples to make a pie. The total was $\$ 4.54$. How much does one pound of apples cost?
17. Camilla has three pieces of ribbon that measure 2 feet, 3 feet, and 4 feet. Without cutting the ribbon, can Jennifer make a triangle out of the pieces of ribbon?
18. What is the volume of the prism to the right?
19. Solve for $m .-32=-3 m+7$
20. Simplify $-9(2 x+4)+8 x+34$

