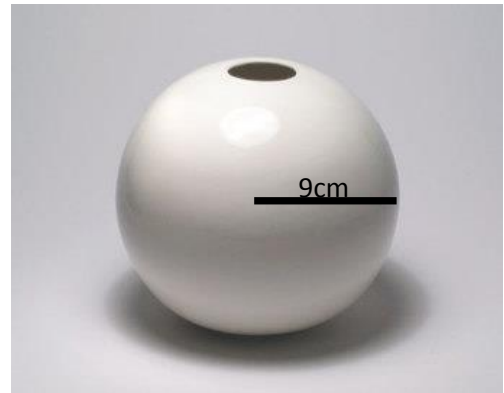
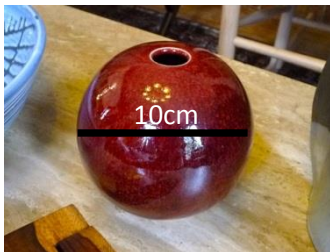


Carefully read each problem; then work the problem. Clearly show the work you did to find the answer.

- 1) Each month, Donyae saves the same amount of money. Her mom contributes fifty dollars to Donyae's account every year. After three years, Donyae has \$906. How much does she save each month ?
- 2) In 2012, Charlie's height was 4'9". In 2016, he is 5'5" tall. What is his rate of growth?
- 3) The function  $f(x) = 10x + 50$  represents the fine for a speeding ticket where  $x$  is the number of miles above the speed limit. How much will Brianna have to pay if she's caught going 45 mph in a 35 mph zone?
- 4) Two spherical vases are shown. How much more water can the large vase hold than the smaller vase?

$$V_{sp} = \frac{4}{3}\pi r^3$$



- 5) In the equation,  $J + 2K = L$ , solve for  $K$ .
- 6) Kyler earns \$12.50 every hour she babysits her siblings. The amount of money she makes from babysitting,  $y$ , can be modeled by the equation  $y = 12.5t$  where  $t$  represents the number of hours she spends babysitting. What is the dependent variable?
- 7) Use subscript notation to represent the recursive equation that generates the sequence 270, 90, 30, 10, ... .
- 8) Solve each equation:
 

A) $3x - 9 = 3(x - 3)$	B) $17x - 17 = 17$	C) $3x + 10 = 10$	D) $3x + 10 = 3x$
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- 9) A rectangular chicken pen is five feet longer than its width. If the perimeter is fifty-four feet, find the area of the pen.