

Name _____

Period 2

Date _____

Actual Wet Measurements

1. Diameter $d = 3\frac{5}{16} = 3.3125 = 3.31 \text{ in}$ ✓

2. Radius $r = \frac{d}{2} = \frac{3.31}{2} = 1.655 = 1.66 \text{ in}$ ✓

3. Height $h = 4\frac{6}{16} = 4.375 = 4.38 \text{ in}$ ✓

4. Outer surface area $SA = 54.31 \text{ in}^2$ ✓

$$\begin{aligned}
 SA &= \pi r^2 + 2\pi rh \\
 &= \pi \times r \times r + 2 \times \pi \times r \times h \\
 &= 3.14 \times 1.66 \times 1.66 + 2 \times 3.14 \times 1.66 \times 4.38 \\
 &= 8.652584 + 45.660624 \\
 &= 8.6526 + 45.6606 \\
 &= 54.3132 \\
 &= 54.31 \text{ in}^2
 \end{aligned}$$

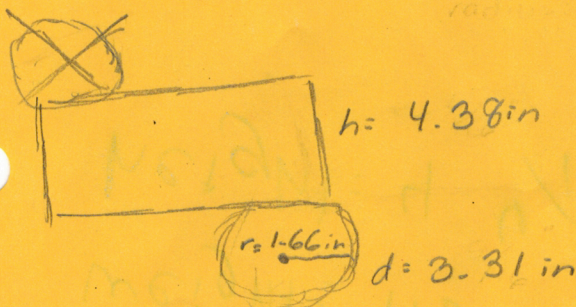
5. Volume of my cylinder $V = 37.90 \text{ in}^3$ ✓

$$\begin{aligned}
 V &= \pi r^2 h \\
 &= \pi \times r \times r \times h \\
 &= 3.14 \times 1.66 \times 1.66 \times 4.38 \\
 &= 37.898317 \\
 &= 37.90
 \end{aligned}$$

$$16 \text{ oz} = 1 \text{ lb} \quad 6. \text{ Weight } \underline{1} \text{ lb } \underline{10.45} \text{ oz} = \underline{26.45} \text{ oz} \quad \checkmark$$

$$\begin{array}{r}
 16 \\
 \times 1 \\
 \hline
 16
 \end{array}
 \quad
 \begin{array}{r}
 16 \\
 \times 10.45 \\
 \hline
 26.4502
 \end{array}$$

7. Did my cylinder net change? Why? If so, draw your new net and label the following dimensions: diameter, length, height)



My cylinder net changed because the paper net was too thin compared to the clay that was thicker. so my height was 0.28 in taller and my diameter was 0.31 in wider.