SUNSHINE MATH - 8
Pluto, III

Name: _____

(This shows my own thinking.)

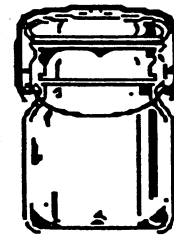★★   1.   If $A \triangle B = A^2 + 2AB + B^2$, evaluate $4 \triangle 5$.

Answer: _____

★   2.   Express 2.7 as a common fraction.

Answer: _____

★★   3.   In a factory, a machine can fill 180 jars in 15 minutes. How many jars can be filled in 100 minutes?

Answer: _____ jars

★★   4.   What is the mode of this list of 16 numbers?   Answer: _____

$$2 \quad 4 \quad 7 \quad 8 \quad 2 \quad 10 \quad 7 \quad 2 \quad 5 \quad 3 \quad 6 \quad 8 \quad 5 \quad 1 \quad 0 \quad 1$$

★   5.   If I dig a hole 4 meters square and 2 meters deep, how much dirt is in the hole?

Answer: _____ cubic meters

★★   6.   Sherry was playing a card game with her friends. She needed to draw a diamond greater than 10 to win the game. If she draws from a full standard deck of cards, what is the probability of her winning?
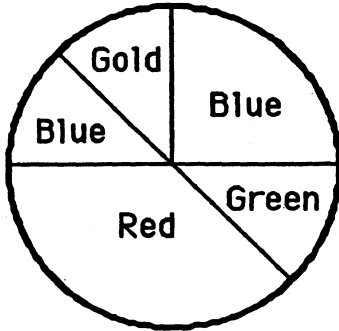
Answer: _____

★★★ 7. Replace R, M, and S with numerals to make a true equation.

$$
\begin{array}{r}
R\,R\,M \\
+\quad S\,M \\
\hline
S\,M\,M\,M
\end{array}
$$

Answer: R = ___, M = ___, S = ___

★★★★ 8. Study the dart board below. Find the probability of hitting each color when a dart is thrown. Write the answer as a fraction in lowest terms.

Answer: Gold _____

Green _____

Red _____

Blue _____

Blue or Gold _____

Orange _____

★★★★ 9. There are fewer than 6 *dozen* Blow Pops in my bag. If I count them by 2's, there is 1 left over. If I count them by 3's, there are 2 left over. There are 3 left over if I count by 4's. Four are left if I count by 5's. How many Blow Pops are in my bag?

Answer:_____blow pops

★★★ 10. A bat ate 208 bugs in 4 days. Each day she ate 20 more than the previous day. How many bugs did she eat each day ?

Answer: day 1: ____bugs; day 2: _____bugs; day 3: ____bugs; day 4: _____bugs