

NAME: _____ Score _____/10

Please **print** your name**SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION**

1. T F Two equations are equal if they have the same solution sets.
2. T F The set of rational numbers contains the set of integers and the set of natural numbers.
3. T F If A and B are sets, then $A = B$ if and only if $A \subset B$ and $B \subset A$.
4. T F If both sides of an equation are multiplied by the same expression, the resulting equation is equivalent to the original equation.
5. A formula must be an _____.
6. If two expressions represent the same quantity, then the two expressions must be _____.
7. Use interval notation to describe the set $[-2, 6] \cap (3, 7)$ as a single interval.
8. (2 pts). A cylindrical can has a volume of $200\pi \text{ cm}^3$ and a radius of 4 cm. What is its height? Make sure you show the details. Your analysis should make it clear how you obtained the model/equation. Write your conclusion in ordinary English.