

NAME: _____ Score _____/10

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

1. Two equations are _____ if they have the same solution sets.
2. The formula for the area of a circle with radius r is: _____.
3. If \mathbf{Q} is the set of rational numbers and \mathbf{F} is the set of irrational numbers, then $\mathbf{R} \cap \mathbf{F} =$ _____.
4. T F If the same non-zero real number is added to both sides of an equation the resulting equation is equivalent to the original.
5. T F $x + 2 = 3$ and $\sqrt{5}x + 2\sqrt{5} = 3\sqrt{5}$ are equivalent equations.
6. T F $x^2 = x$ and $x = 1$ are equivalent equations.
7. T F The area of a triangle with base b and height h is given by the formula $A = \frac{1}{3}bh$.
8. Use interval notation to describe the set $\{x \in \mathbf{R} \mid 2 \leq x < 5\}$
9. (2 pts). Parade floats travel down a 7.5 mile-long parade route at a rate of 2.5 mph. How long will it take a float to complete the parade if there are no delays? Make sure you show the details. Your analysis should make it clear how you obtained the model/equation. Write your conclusion in ordinary English.