

Name: _____

Math 22 Section 9

Practice for Quiz 2

1. Write the following in the form $a + bi$:

(a) $(2 - 7i)(1 + 3i)$

(b) $\frac{2+3i}{1-4i}$

2. Find the distance and midpoint between the points $(3, 5)$
and $(-5, 2)$.

3. Solve the inequality. Express the solution as an interval.

$$\frac{x - 2}{x + 5} \leq 2$$

4. An old scale measures weight with an accuracy of ± 1 lb. If a merchant sells potatoes using this scale at \$2/lb, by how much could he be overcharging or undercharging a customer who buys 10lbs of potatoes?

5. Find all solutions to

$$x^{\frac{1}{2}} - 4x^{\frac{1}{4}} + 3 = 0$$

6. Solve the inequality and express the solution as an interval:

$$\frac{1}{|x + 5|} \geq 2$$