

Algebra 2 Weds. 10-3-12 (Class Notes)

$$(64) \frac{2-3i}{i} \cdot \left(\frac{i}{i}\right) = \frac{2i-3i^2}{-1} = \frac{2i+3}{-1}$$

Homework
Review

$$= \boxed{-3-2i}$$

$$(68) \frac{8+4i}{7+i} \cdot \frac{7-i}{7-i} = \frac{56-8i+28i-4i^2}{7^2-i^2}$$

$$= \frac{60+20i}{50}$$

$$= \frac{6+2i}{5}$$

$$= \boxed{\frac{6}{5} + \frac{2i}{5}}$$

$$(61) i^{27} = \boxed{-i}$$

$$(62) -i^{11} - (-i) = \boxed{i} \checkmark$$

$$(63) 5i^{10} = \boxed{-5}$$

$$(83) \quad |2\sqrt{2} - i\sqrt{3}| \quad a+bi$$

$$\sqrt{8 + 3} = \boxed{\sqrt{11}}$$

$$(2\sqrt{2})^2 = 2^2 (\sqrt{2})^2$$

$$4 \cdot 2 = 8$$

$$(81) \quad \left| \frac{3}{2} - \frac{1}{2}i \right|$$

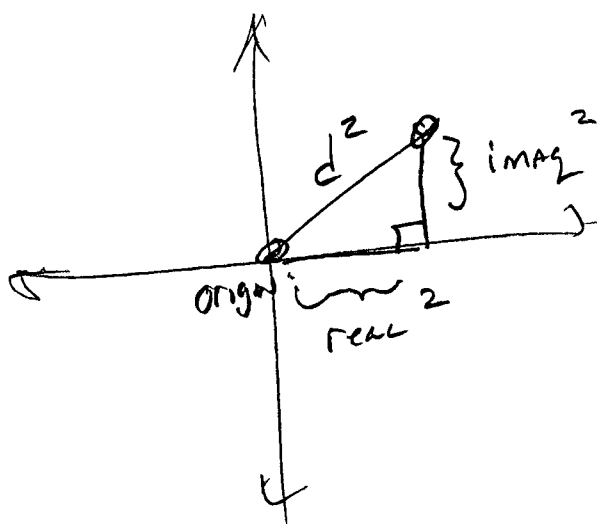
$$\sqrt{\frac{9}{4} + \frac{1}{4}} = \sqrt{\frac{10}{4}} = \frac{\sqrt{10}}{\sqrt{4}}$$

$$= \boxed{\frac{\sqrt{10}}{2}}$$

DOS "Difference of 'Perfect' Squares"

$$(a+b)(a-b) = a^2 - b^2$$

$$(a-b)(a+b)$$



ABSOLUTE
VALUE
of
Complex
Number
= distance to
origin

Worksheet Problems (WS)

$$\textcircled{20} \text{ } ^{\text{WS}} -4 - i(4i) + (3 - 3i)$$

$$\underline{\underline{-4}} \textcircled{-4i} + \underline{\underline{3}} \textcircled{-3i}$$

$$\boxed{-1 - 7i}$$
