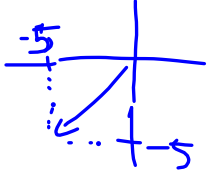
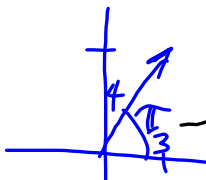
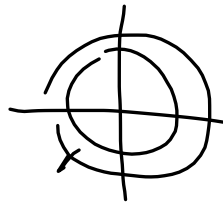
	$z_1 = -5 - 5i$	$z_2 = 4e^{\frac{\pi}{3}i}$
a) picture		 <p>$c = 2\pi$ could use $\frac{\pi}{3} + 2\pi n, n \in \mathbb{Z}$</p>
b) other form	$z_1 = 5\sqrt{2}e^{\frac{5\pi}{4}i}$	$z_2 = 2 + 2\sqrt{3}i$
c) \bar{z} , in given form	$\bar{z}_1 = -5 + 5i$	$\bar{z}_2 = 4e^{-\frac{\pi}{3}i} <$
d) $ z $	$ z_1 = 5\sqrt{2}$	$ z_2 = 4$
e) $\text{Re } z$	$\text{Re } z_1 = -5$	$\text{Re } z_2 = 2$
f) $\text{Im } z$	$\text{Im } z_1 = -5$	$\text{Im } z_2 = 2\sqrt{3}$
g) $\arg z$	$\arg z_1 = \frac{5\pi}{4} + 2\pi n$	$\arg z_2 = \frac{\pi}{3} + 2\pi n$
h) $\text{Arg } z$	$\text{Arg } z_1 = -\frac{3}{4}\pi$	$\text{Arg } z_2 = \frac{\pi}{3}$
$-\pi < \phi \leq \pi$		

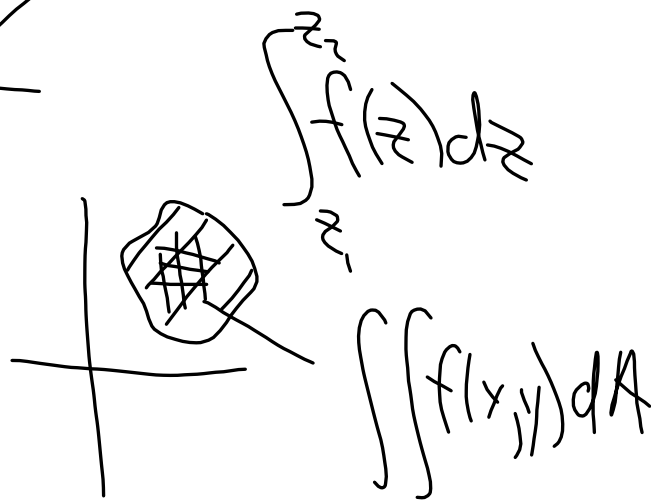
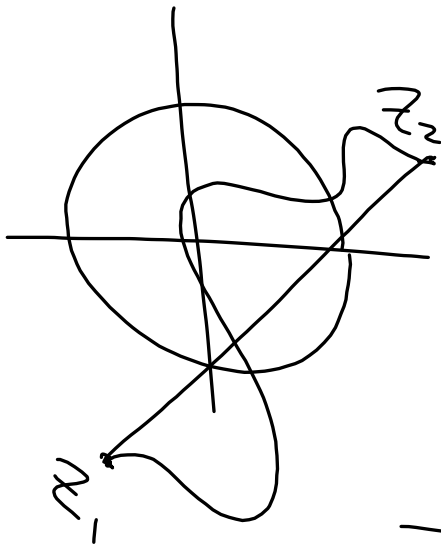
$$|3 + (-2)| \leq |3| + |-2|$$

$$|z_1 + z_2| \leq |z_1| + |z_2| \text{ Triangle inequality}$$

$$(3+4i)(3-4i) = 9 - 16i^2 = 9 + 16$$

$$|3+4i| = \sqrt{3^2 + 4^2}$$

$z = e^{i\theta} \Rightarrow$ let θ run from
 0 to 2π



Answers for 4G:

1. a) $7 - i$

4. d)

b) $1 - i$

e)

c) $11 - 2i$

f)

d) 5

g)

e) $-2 + 3i$

5. d)

Assignment 1

Do all steps from page 1 (of these notes) for EE:8,9

Due at 3PM Thursday