Tarea 2 Numeros Complejos

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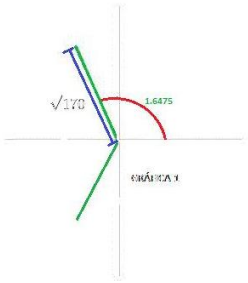
Resuelve lo siguiente
Z = 1 + 2i
W = 5 + 3i
V = 4 + i
1)X.W
2)$\bar{W} - \bar{V}$
3)6W+2Z

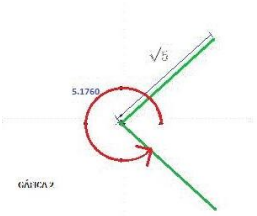
1 Ejercicio 1

1)X.W =
$(1+2i)(5+3i) = 5+31+10+6^2 = 5+13i-6 = -1+13i$
$z = -1+13i$
$\bar{z} = -1-13i$
$|z| = \sqrt{\alpha^2+\beta^2} = \sqrt{(-1)^2+(-13)^2} = \sqrt{170}$
$\theta = \Pi - (tan^-1(\frac{13}{-1})) = 1.6475$

2 Ejercicio 2

2)$\bar{w} - \bar{v} =$

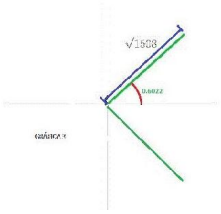




$(5-3i)-(4-i)=5-3i-4+i=1-2i$
$z=-1-2i$
$\bar{z}=-1+2i$
$|z|=\sqrt{\alpha^2+\beta^2}=\sqrt{(1)^2+(-2)^2}=\sqrt{5}$
$\theta=2\Pi-(tan^-1(\frac{-2}{1}))=5.1760$

3 Ejercicio 3

3)6w+2z =
$6(5+3i)-2(1+2i)=30+18i+2+4i=32+22i$
$z=32+22i$
$\bar{z}=32+22i$
$|z|=\sqrt{\alpha^2+\beta^2}=\sqrt{(32)^2+(22)^2}=\sqrt{1024+484}=\sqrt{1580}$
$\theta=(tan^-1(\frac{22}{32}))=0.6022$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