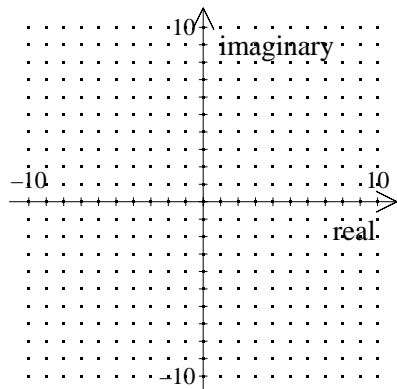


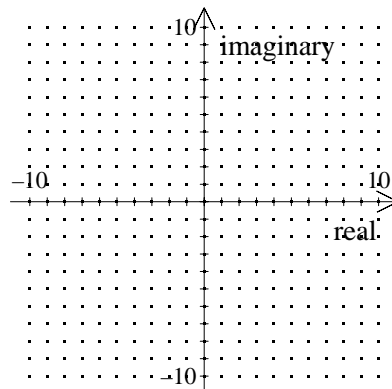
NAME: _____

1. Graph the complex number. $-2 + 2i$



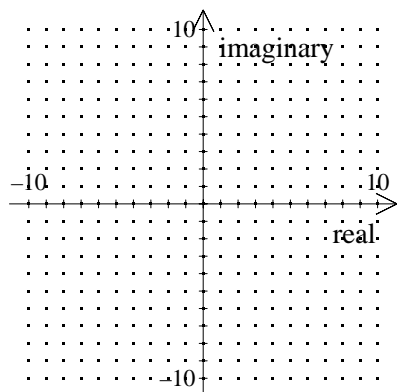
[1] _____

4. Graph the complex number. $-1 - 6i$



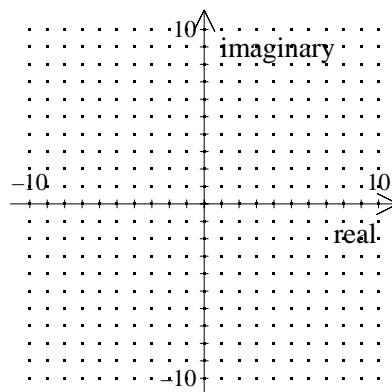
[4] _____

2. Graph the complex number. $4 + 7i$



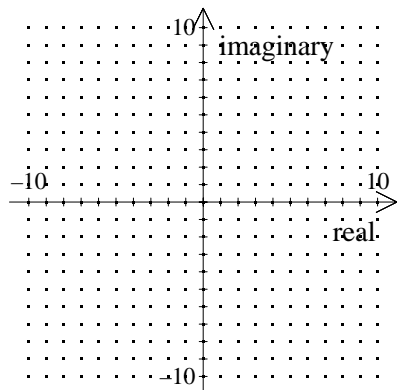
[2] _____

5. Graph the complex number. $-5 - 4i$



[5] _____

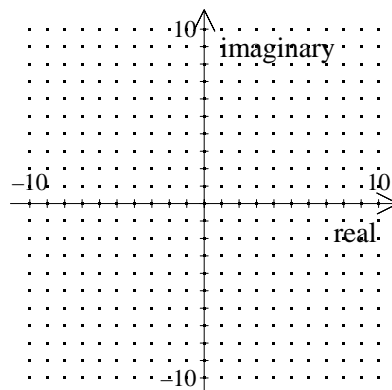
3. Graph the complex number. $9 + 9i$



[3] _____

Use a graph to add or subtract the complex numbers.

6. $(4 + 5i) - (12 + 9i)$

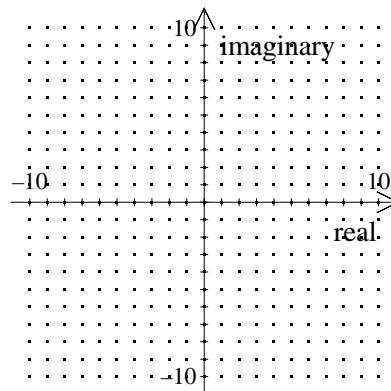


[6] _____

NAME: _____

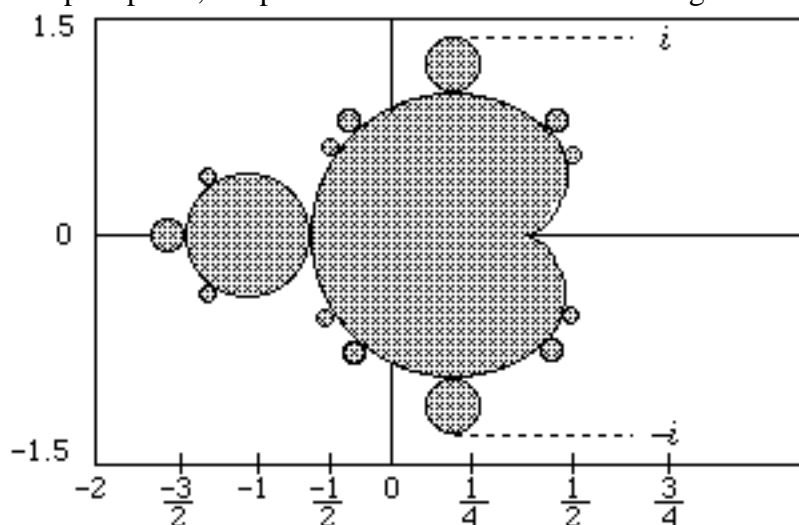
Use a graph to add or subtract the complex numbers.

7. $(-3 + 5i) + (8 - 5i)$



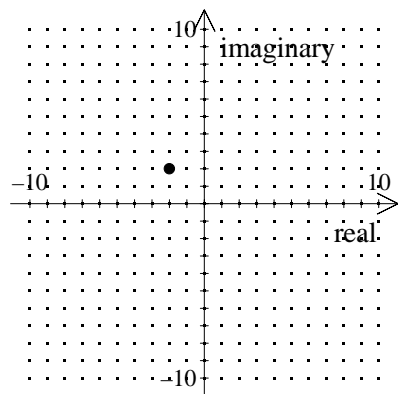
[7] _____

8. The Mandelbrot set is a set of complex numbers that behave in a certain way. When plotted in the complex plane, the points of the set are in the dark region. Points not in the set are in the white region.

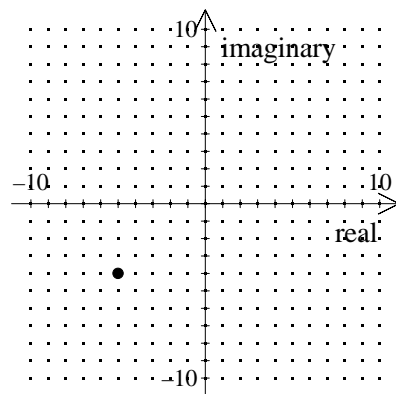


Graph the point $\frac{1}{4} - \frac{i}{2}$. Then compare your graph to the picture of the Mandelbrot set. Is it in the Mandelbrot set?

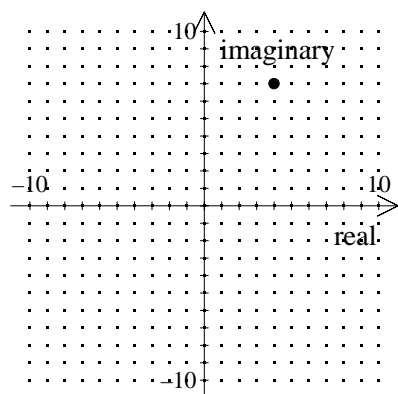
[8] _____



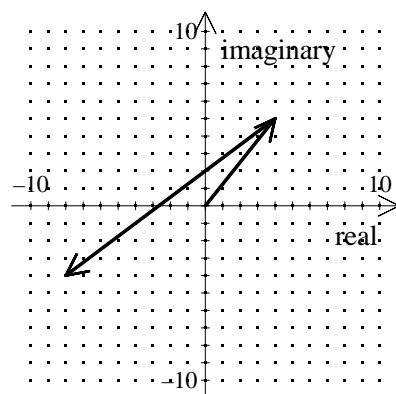
[1]



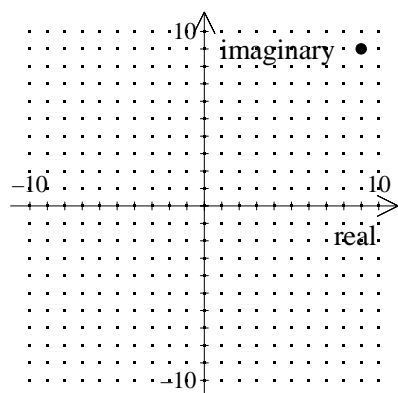
[5]



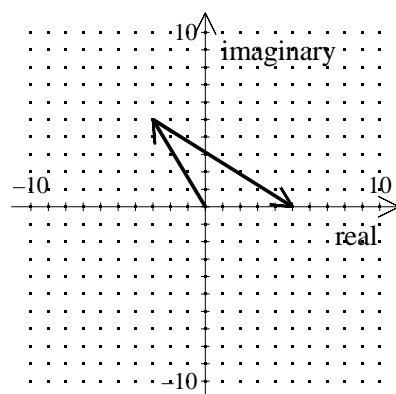
[2]



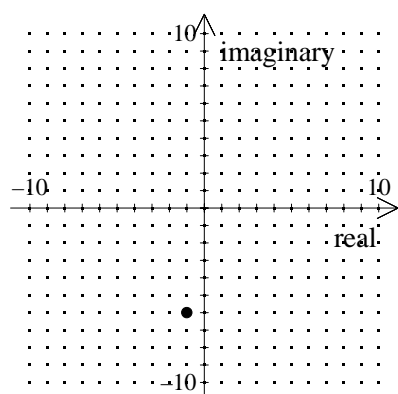
[6] $-8 - 4i$



[3]



[7] 5



[4]

[8] yes; Check students' graphs.
