SATPREP Name_____

Assignment-Imaginary Numbers

Date_____

Simplify.

1) $\dfrac{10 - 9i}{3 + 4i}$

2) $\dfrac{5i}{-1 - 3i}$

3) $(6 - 6i)(-4 - 7i)$

4) $(-4i)(8i)(-5 + 8i)$

Find the absolute value of each complex number.

5) $|-1 + 2i|$

6) $|-4 - 3i|$

Simplify.

7) $\dfrac{-4}{-7i}$

8) $\dfrac{-7 + 9i}{10i}$

9) $(-3i)(8 + i)(8 + i)$

10) $(2 - 4i)(-1 + 2i)(5 + 3i)$

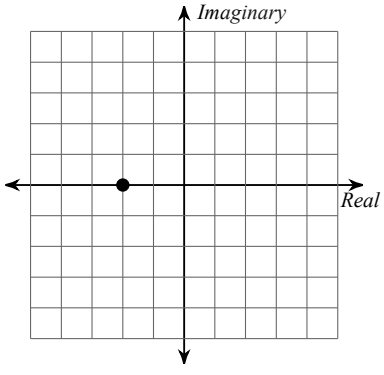
Graph each number in the complex plane.

11) $1 - 4i$

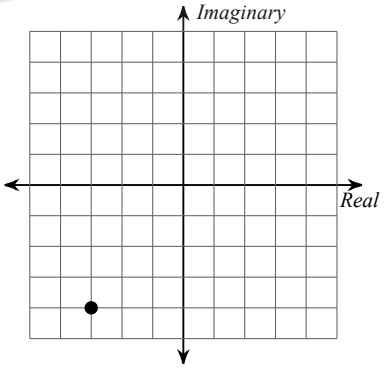
12) $-3 - i$

Identify each complex number graphed.

13)



14)



Answers to Assignment-Imaginary Numbers

1) $\frac{-6 - 67i}{25}$

2) $\frac{-i - 3}{2}$

3) $-66 - 18i$

4) $-160 + 256i$

5) $\sqrt{5}$

6) 5

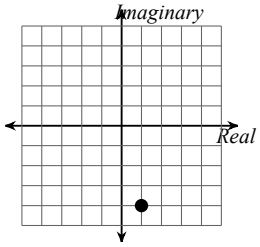
7) $-\frac{4i}{7}$

8) $\frac{7i + 9}{10}$

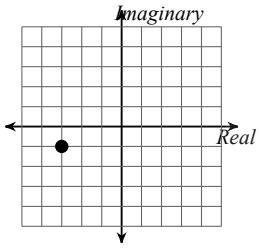
9) $48 - 189i$

10) $6 + 58i$

11)



12)



13) -2

14) $-3 - 4i$