

Name : _____

Complex Numbers

Sheet 1

Simplify.

1) $(-4 - i) + (-2 + 3i) - (6 + 5i)$

2) $\frac{11 - 6i}{5 + 2i}$

3) $\frac{\sqrt{2}(8 - \sqrt{-2})}{i}$

4) $\left(-\frac{1}{7} - 4i\right) - (2 + 6i)$

5) $(9i)(4i + 12) + (13 + \sqrt{-9})$

6) $\frac{-i + 3 - (7i - 12)}{-2 - i}$

7) $\frac{(-8 + 3i)(-i)}{-6 + 2i} - 2i$

8) $(9 - 5i) + (-5i - 4) - \left(\frac{i}{8}\right)$

Name : _____

Answer key

Complex Numbers

Sheet 1

Simplify.

1) $(-4 - i) + (-2 + 3i) - (6 + 5i)$

$-12 - 3i$

2) $\frac{11 - 6i}{5 + 2i}$

$\frac{43}{29} - \frac{52}{29}i$

3) $\frac{\sqrt{2}(8 - \sqrt{-2})}{i}$

$-2 - 8\sqrt{2}i$

4) $\left(-\frac{1}{7} - 4i\right) - (2 + 6i)$

$-\frac{15}{7} - 10i$

5) $(9i)(4i + 12) + (13 + \sqrt{-9})$

$-23 + 111i$

6) $\frac{-i + 3 - (7i - 12)}{-2 - i}$

$-\frac{22}{5} + \frac{31}{5}i$

7) $\frac{(-8 + 3i)(-i)}{-6 + 2i} - 2i$

$-\frac{1}{20} - \frac{67}{20}i$

8) $(9 - 5i) + (-5i - 4) - \left(\frac{i}{8}\right)$

$5 - \frac{81}{8}i$