Name : _____

Rationalize the denominators

Sheet 3

Rationalize the denominator and then simplify.

1) $\frac{13 + 12i}{i}$

2) $\frac{\sqrt{16} + \sqrt{-25}}{2 + 6i}$

3) $\frac{14 + 4\sqrt{-4}}{6 + 3i}$

4) $\frac{-7 - 9i}{6i}$

$\frac{15i}{1 - 7i}$

7) $\frac{-13 + 8i}{4 + 2i}$

$\frac{8 - \sqrt{-49}}{5 + 3i}$

10) $-\frac{29}{11i}$

11) $\frac{-14 + 2i}{-6 + 5i}$

12) $\frac{10 - i}{9 - 4i}$

Name : _____

Answer key

Rationalize the denominators

Sheet 3

Rationalize the denominator and then simplify.

1) $\frac{13 + 12i}{i}$

$12 - 13i$

2) $\frac{\sqrt{16} + \sqrt{-25}}{2 + 6i}$

$\frac{19}{20} - \frac{7}{20}i$

3) $\frac{14 + 4\sqrt{-4}}{6 + 3i}$

$\frac{12}{5} + \frac{2}{15}i$

4) $\frac{-7 - 9i}{6i}$

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

$\frac{15i}{1 - 7i}$

$-\frac{21}{10} + \frac{3}{10}i$

7) $\frac{-13 + 8i}{4 + 2i}$

$-\frac{9}{5} + \frac{29}{10}i$

$\frac{8 - \sqrt{-49}}{5 + 3i}$

$\frac{19}{34} - \frac{59}{34}i$

10) $-\frac{29}{11i}$

$\frac{29}{11}i$

11) $\frac{-14 + 2i}{-6 + 5i}$

$\frac{94}{61} + \frac{58}{61}i$

12) $\frac{10 - i}{9 - 4i}$

$\frac{94}{97} + \frac{31}{97}i$