



## Rationalizing Imaginary Denominators

Name: \_\_\_\_\_

Date: \_\_\_\_\_



Simplify.

1)  $\frac{-5}{-5i} =$

2)  $\frac{-1+8i}{-i} =$

3)  $\frac{-5-3i}{7-10i} =$

4)  $\frac{3}{i} =$

5)  $\frac{4-9i}{-6i} =$

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

7)  $\frac{1+9i}{2+9i} =$

8)  $\frac{9i}{-6+7i} =$

9)  $\frac{5i}{-4+9i} =$

10)  $\frac{9}{-9+i} =$

11)  $\frac{8i}{-10+3i} =$

12)  $\frac{3i}{-4+5i} =$

13)  $\frac{1}{5-2i} =$

14)  $\frac{9i}{1-6i} =$





## Rationalizing Imaginary Denominators

## Answers



Simplify.

1)  $\frac{-5}{-5i} = -i$

2)  $\frac{-1+8i}{-i} = -8 - i$

3)  $\frac{-5-3i}{7-10i} = -\frac{5}{149} - \frac{71}{149}i$

4)  $\frac{3}{i} = -3i$

5)  $\frac{4-9i}{-6i} = \frac{3}{2} + \frac{2}{3}i$

6)  $\frac{-7-7i}{-7-4i} = \frac{77}{65} + \frac{21}{65}i$

7)  $\frac{1+9i}{2+9i} = \frac{83}{85} + \frac{9}{85}i$

8)  $\frac{9i}{-6+7i} = \frac{63}{85} - \frac{54}{85}i$

9)  $\frac{5i}{-4+9i} = \frac{45}{97} - \frac{20}{97}i$

10)  $\frac{9}{-9+i} = -\frac{81}{82} - \frac{9}{82}i$

11)  $\frac{8i}{-10+3i} = \frac{24}{109} - \frac{80}{109}i$

12)  $\frac{3i}{-4+5i} = \frac{15}{41} - \frac{12}{41}i$

13)  $\frac{1}{5-2i} = \frac{5}{29} + \frac{2}{29}i$

14)  $\frac{9i}{1-6i} = -\frac{54}{37} + \frac{9}{37}i$

