



Math worksheet on 'Complex Numbers - Division Imaginary Part Only (Level 1)'. Part of a broader unit on 'Complex Numbers'

Learn online: [app.mobius.academy/math/units/complex\\_numbers/](http://app.mobius.academy/math/units/complex_numbers/)

**1** Divide these complex numbers and simplify

|                 |                     |                     |
|-----------------|---------------------|---------------------|
| a               | b                   | c                   |
| $\frac{-5}{4}$  | $\frac{-3}{4}$      | $\frac{-5 + 2i}{4}$ |
| d               | e                   | f                   |
| $\frac{-5}{-4}$ | $\frac{-5 - 2i}{4}$ | $\frac{-6}{4}$      |

$\frac{-5i}{4i}$

**2** Divide these complex numbers and simplify

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| a                  | b                  | c                  |
| $\frac{3}{5}$      | $\frac{1}{5}$      | $\frac{2}{5 + 1i}$ |
| d                  | e                  | f                  |
| $\frac{2 - 1i}{5}$ | $\frac{2}{5 - 1i}$ | $\frac{2}{5}$      |

$\frac{2i}{5i}$

**3** Divide these complex numbers and simplify

|                     |                     |                     |
|---------------------|---------------------|---------------------|
| a                   | b                   | c                   |
| $\frac{-5}{5}$      | $\frac{-4 - 1i}{5}$ | $\frac{-4}{5}$      |
| d                   | e                   | f                   |
| $\frac{-4}{5 - 2i}$ | $\frac{-2}{5}$      | $\frac{-4 - 2i}{5}$ |

$\frac{4i}{-5i}$

**4** Divide these complex numbers and simplify

|                     |                     |                |
|---------------------|---------------------|----------------|
| a                   | b                   | c              |
| $\frac{-5}{5}$      | $\frac{3}{5}$       | $\frac{-3}{7}$ |
| d                   | e                   | f              |
| $\frac{-3}{5 - 1i}$ | $\frac{-3 + 2i}{5}$ | $\frac{-3}{5}$ |

$\frac{-3i}{5i}$

**5** Divide these complex numbers and simplify

|                     |                     |                     |
|---------------------|---------------------|---------------------|
| a                   | b                   | c                   |
| $\frac{-3 + 1i}{4}$ | $\frac{-3}{6}$      | $\frac{-3}{4}$      |
| d                   | e                   | f                   |
| $\frac{-3}{4 - 2i}$ | $\frac{-3 + 2i}{4}$ | $\frac{-3 - 1i}{4}$ |

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

**6** Divide these complex numbers and simplify

|                    |               |               |
|--------------------|---------------|---------------|
| a                  | b             | c             |
| $\frac{5 - 1i}{6}$ | $\frac{5}{4}$ | $\frac{6}{6}$ |
| d                  | e             | f             |
| $\frac{5}{7}$      | $\frac{7}{6}$ | $\frac{5}{6}$ |

$\frac{-5i}{-6i}$

**7** Divide these complex numbers and simplify

|   |          |    |
|---|----------|----|
| a | b        | c  |
| 3 | $1 - 2i$ | -1 |
| d | e        | f  |
| 2 | $1 + 1i$ | 1  |

$\frac{-6i}{-6i}$