

Graph each number in the complex (Not polar!) plane, then find its absolute value.

1) $z = 4 + 4i$

2) $z = -4 - 6i$

3) $z = 3 + 4i$

4) $z = -3 - 7i$

Express each complex number in polar form

5) $-2 + i$

6) $2 - 2i$

7) $-2 + 4i$

8) $3 + 3i$

Graph each complex number on a polar grid, then express it in rectangular form.

9) $2(\cos 3 + i \sin 3)$

10) $3\left(\cos \frac{\pi}{4} + i \sin \frac{\pi}{4}\right)$

Simplify:

11) $(2 - 4i) - (1 - i)$

12) $(-7 - 2i) + (7 + i)$

13) $(2 + i) - (3 + 4i)$

14) $(-3 + 6i)(6 - 7i)$

15) $(-8 - 6i)(-5 + 3i)(7 + i)$

16) $\frac{6 + 4i}{-4 + 8i}$

17) $\frac{3 - 4i}{7 - 2i}$

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