

Unit 5.1 Operations with Complex numbers Example

Simplify.

1) $(8i) + (i)$

2) $(-7 + 4i) + 8$

3) $(-8i) - (6i)$

4) $8 - (-8 + 6i) + (3i)$

5) $(-7 - 7i) - (4 + i)$

6) $(-4 - 7i) + (i) - (4i)$

7) $6 - (-7 + 7i) + (4 + 8i)$

8) $(6i) - (-8 - 4i) - (7 + 5i)$

9) $(-1 - 4i) + (-8 - 6i) - (8i)$

10) $(-3i) \cdot 6 \cdot (-6i)$

11) $6(8i)$

12) $(-3i)(-4i)$

13) $(7 + i)(-3 + 8i)$

14) $-7(i)(5 + 8i)$

$$15) (8 - 7i)(6 - 4i)$$

$$16) (-i)(4 + i)(-6 - 5i)$$

$$17) 3(-4 + 2i)(6 + 7i)$$

$$18) (-5 - 7i)(-6 + 7i)(-4 + 2i)$$

$$19) 6 + (5i) \cdot 2$$

$$20) (-4i) + (3i)(-4i)$$

$$21) (-4i) + (8i) \cdot 3$$

$$22) 8(-2 - i) + 7(-1 - 5i)$$

$$23) (-5 - 5i)(8 + 6i)$$

$$24) (4 + 8i) - (-1 - 4i)$$

$$25) (4 + 7i)(5 + 8i) + (-5 + 2i)^2$$

$$26) (2i)(6i)(6 + 5i) + (6 + 4i) + (-4 + 3i)$$

$$27) (-5 + 3i)^2 + (-1 + 6i) - (2i) - 4$$

$$28) (-2i) + (-8 - 7i) - 6 + (-8 - 4i)(-8 - 3i)$$

Unit 5.1 Operations with Complex numbers Example

Simplify.

1) $(8i) + (i)$

$9i$

2) $(-7 + 4i) + 8$

$1 + 4i$

3) $(-8i) - (6i)$

$-14i$

4) $8 - (-8 + 6i) + (3i)$

$16 - 3i$

5) $(-7 - 7i) - (4 + i)$

$-11 - 8i$

6) $(-4 - 7i) + (i) - (4i)$

$-4 - 10i$

7) $6 - (-7 + 7i) + (4 + 8i)$

$17 + i$

8) $(6i) - (-8 - 4i) - (7 + 5i)$

$1 + 5i$

9) $(-1 - 4i) + (-8 - 6i) - (8i)$

$-9 - 18i$

10) $(-3i) \cdot 6 \cdot (-6i)$

-108

11) $6(8i)$

$48i$

12) $(-3i)(-4i)$

-12

13) $(7 + i)(-3 + 8i)$

$-29 + 53i$

14) $-7(i)(5 + 8i)$

$56 - 35i$

$$15) (8 - 7i)(6 - 4i)$$

$$20 - 74i$$

$$16) (-i)(4 + i)(-6 - 5i)$$

$$-26 + 19i$$

$$17) 3(-4 + 2i)(6 + 7i)$$

$$-114 - 48i$$

$$18) (-5 - 7i)(-6 + 7i)(-4 + 2i)$$

$$-330 + 130i$$

$$19) 6 + (5i) \cdot 2$$

$$6 + 10i$$

$$20) (-4i) + (3i)(-4i)$$

$$12 - 4i$$

$$21) (-4i) + (8i) \cdot 3$$

$$20i$$

$$22) 8(-2 - i) + 7(-1 - 5i)$$

$$-23 - 43i$$

$$23) (-5 - 5i)(8 + 6i)$$

$$-10 - 70i$$

$$24) (4 + 8i) - (-1 - 4i)$$

$$5 + 12i$$

$$25) (4 + 7i)(5 + 8i) + (-5 + 2i)^2$$

$$-15 + 47i$$

$$26) (2i)(6i)(6 + 5i) + (6 + 4i) + (-4 + 3i)$$

$$-70 - 53i$$

$$27) (-5 + 3i)^2 + (-1 + 6i) - (2i) - 4$$

$$11 - 26i$$

$$28) (-2i) + (-8 - 7i) - 6 + (-8 - 4i)(-8 - 3i)$$

$$38 + 47i$$