

Section 6: Simplifying Negative Square Roots

43. Which of the following is the expression below in simplest radical form?

imaginary $\sqrt{-12}$

$$\begin{array}{c} \sqrt{12} \\ \wedge \\ (2) \quad 6 \\ \wedge \quad \wedge \\ (2) \quad (3) \end{array}$$

~~A. $-2\sqrt{3}$~~

~~B. $-4\sqrt{3}$~~

~~$(2 \cdot 2) \cdot 3$~~

C. $2i\sqrt{3}$

D. $4i\sqrt{3}$

$2i\sqrt{3}$

44. Write the radical expression below in simplest terms.

imaginary $\sqrt{-8}$

$$\begin{array}{c} \sqrt{8} \\ \wedge \\ 4 \quad (2) \end{array}$$

$$\begin{array}{c} \wedge \\ (2) \quad (2) \end{array}$$

~~$(2 \cdot 2) \cdot 2$~~

$2i\sqrt{2}$

Section 7: Operations with Complex Numbers

45. Which of the following is equivalent to the expression below?

$$(2 + 3i) - 1(5 - 7i) \quad \text{distribute}$$

$$2 + 3i - 5 + 7i$$

$-3 + 10i$

46. Which of the following is equivalent to the expression below?

$$(2 + i) - 1(7 - 4i) \quad \text{distribute}$$

$$2 + i - 7 + 4i$$

$-5 + 5i$

A. $-5 + 5i$ B. $5 + 5i$

C. $5 - 3i$ D. $-5 - 3i$