### Lesson 14 Practice Problems

1. Select **all** expressions that are equivalent to $8+16i$.
	1. $2(4+8i)$
	2. $2i(8−4i)$
	3. $4(2i−4)$
	4. $4i(4−2i)$
	5. $-2i(-8−4i)$
2. Which expression is equivalent to $(-4+3i)(2−7i)$?
	1. $-29−22i$
	2. $-29+34i$
	3. $13−22i$
	4. $13+34i$
3. Match the equivalent expressions.
	1. $i^{2}(3+i)$
	2. $-4i⋅5i$
	3. $5i(4−3i)$
	4. $(1+2i)(-1+3i)$
	5. $(3+5i)−(10+4i)$
	6. $(2+4i)(2−4i)$
	7. $(1−4i)+(-4+3i)$
	8. $(-6+12i)−(-21−8i)$
4. Write each expression in $a+bi$ form.
	1. $(-8+3i)−(2+5i)$
	2. $7i(4−i)$
	3. $(3i)^{3}$
	4. $(3+5i)(4+3i)$
	5. $(3i)(-2i)(4i)$
5. Here is a method for solving the equation $\sqrt{5+x}+10=6$. Does the method produce the correct solution to the equation? Explain how you know.
* $\begin{matrix}\sqrt{5+x}+10&=6&\\\sqrt{5+x}&=-4& (after subtracting 10 from each side)\\5+x&=16& (after squaring both sides)\\x&=11&\end{matrix}$
* (From Unit 3, Lesson 7.)
1. Write each expression in the form $a+bi$, where $a$ and $b$ are real numbers.
	1. $4(3−i)$
	2. $(4+2i)+(8−2i)$
	3. $(1+3i)(4+i)$
	4. $i(3+5i)$
	5. $2i⋅7i$
* (From Unit 3, Lesson 13.)



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