

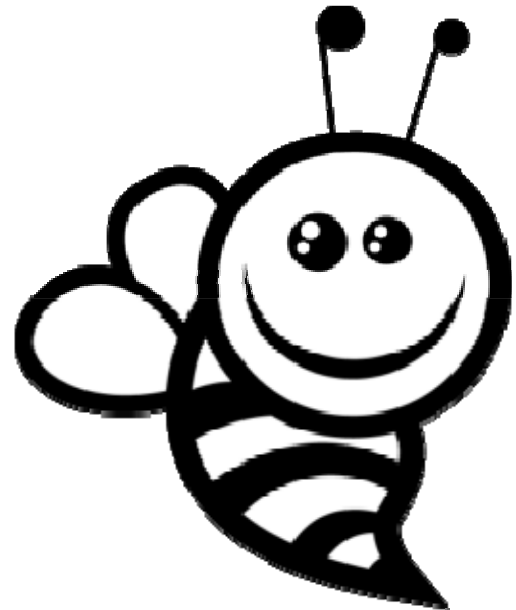
Name _____

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Simplifying Complex Numbers - Step-by-Step Lesson

Lesson 1 Complex Problem:

a. $\sqrt{-18}$



Explanation:

Step 1) We need to remember the imaginary unit (i). It is defined as:

$$i = \sqrt{-1}$$

When you see a negative symbol under a radical, it comes out as i because the problem will contain the square root of -1 .

Step 2)

$$\begin{aligned}\sqrt{-18} &= \sqrt{9(2)(-1)} \\ &= \sqrt{9} \sqrt{2} \sqrt{-1} = 3\sqrt{2}i\end{aligned}$$

Answer $3\sqrt{2}i$

