Name: _____

Complex Numbers Circuit

Starting with number 1, simplify the expression. Hunt for your answer and label that problem #2. When you are done, write the answer of the 24th question in the blank next to #1. You do NOT need a calculator for this. Good luck!

1. Answer: _____ Simplify: i^2	____ Answer: 15 Simplify: $\sqrt{169}$
_____ Answer: $3\sqrt{11}$ Simplify: $\sqrt{-36}$	_____ Answer: $8 + 5i$ Simplify: $\frac{\sqrt{-75}}{\sqrt{25}}$
____ Answer: $18\sqrt{2}$ Simplify: $(2 + 3i) + (6 – 2i)$	_____ Answer: i Simplify: $3i^2$
____ Answer: $8 + i$ Simplify: $(2 + 3i) – (6 – 2i)$	_____ Answer: $6i\sqrt{2}$ Simplify: $\sqrt{-75}$
_____ Answer: $3i$ Simplify: $\sqrt{225}$	_____ Answer: $i\sqrt{3}$ Simplify: $\frac{\sqrt{25}}{\sqrt{-75}}$

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____ Answer: $6i$ Simplify: $\sqrt{-72}$	_____ Answer: -1 Simplify: i^5
_____ Answer: $3\sqrt{7}$ Simplify: $\sqrt{99}$	_____ Answer: 13 Simplify: $\sqrt{63}$
_____ Answer: $-10i\sqrt{3}$ Simplify: $-3i\sqrt{-72}$	____ Answer: $5i\sqrt{3}$ Simplify: $3i\sqrt{-72}$
____ Answer: $-18\sqrt{2}$ Simplify: $2i^2\sqrt{-75}$	_____ Answer: -9 Simplify $-3i^3$
____ Answer: -3 Simplify $(3i)^2$	____ Answer: 2 Simplify: $(2 + 3i)(6 + 2i)$
____ Answer: $-\frac{\sqrt{3}}{3}i$ Simplify: $\frac{\sqrt{72}}{\sqrt{-18}}$	____ Answer: $-2i$ Simplify: $\frac{\sqrt{-72}}{\sqrt{-18}}$
____ Answer: $6 + 22i$ Simplify: (6 + 2i)(6 - 2i)	____ Answer: $-4 + 5i$ Simplify: $(2 + 3i) + (6 + 2i)$