

Complex Numbers

$$a + bi$$

\downarrow
Real
Part
 \downarrow
Imaginary
Part

Name _____

Complex Number Maze

Directions: To complete the maze 1) simplify each expression, 2) shade the squares that contain simplified complex numbers, 3) from the square labeled "Start Here" follow a path through adjacent squares that contain simplified complex numbers to the square labeled "End Here".

| | | | | | |
|--------------------------|------------------|------------------|----------------|----------------|---------------------------|
| $(2+i)(2-i)$ | $(1+2i)+(-3+4i)$ | $(3-6i)(4-2i)$ | $2(3i)$ | $4i(7i)$ | Start Here $\sqrt{-9}$ |
| $\sqrt{6-5}$ | $-\sqrt{-36}$ | $(1+3i)-(7+3i)$ | $\sqrt{-81}$ | $\sqrt{-16}+3$ | $5(3+2i)$ |
| $\sqrt{\frac{49}{16}}$ | $(3+10i)-(1-2i)$ | $(3+7i)-(-1-2i)$ | $4+\sqrt{3}$ | $-\sqrt{16}$ | $2i-(5+2i)$ |
| $(2+9i)(2-9i)$ | $6i-\sqrt{-36}$ | $(3+4i)(3+4i)$ | $3-\sqrt{-49}$ | $-\sqrt{-9}$ | $3i(5+3i)$ |
| $(6+2i)+(1-2i)$ | i^2 | $\sqrt{216}$ | $6i^2$ | $(4-3i)(4+3i)$ | $(1+2i)(-1-2i)$ |
| $\sqrt{-225}$ | $(5+4i)-(-1-2i)$ | $(1+2i)+(2-3i)$ | $(2i)(-3i)$ | $2(3+4i)$ | $3i(6+2i)$ |
| $-\sqrt{-1}$ End Here | $-3i(-5i)$ | $5i^2(2+i)$ | $(2-3i)-3i$ | $3-(2-i)$ | $-\sqrt{64}$ |