Name: _____

Imaginary and Complex Numbers

1) Simplify each expression

    1) i^{4567} 2) i^{117}

    3) i^{1001} 4) i^{4032}

    5) $i^{2143} + i^{976}$ 6) $i^{102} + i^{57}$

    7) $i^{23} + i^{67} - i^{15}$ 8) $i^{34} - i^{91} - i^{86}$

2) Write $\sqrt{-25}$ as an imaginary number

3) Write $\sqrt{16} - \sqrt{-36}$ as a complex number

4) Simplify: $\dfrac{2 + i^{137}}{1 + i^{1003}}$