

Addition:

1) $(5 + 7i) + (3 - 4i) =$

2) $(3 + i) - (2 + i) =$

Multiplication:

1) $(3 + 2i)(1 - i) =$

2) $(1 + i)^2 =$

Conjugate and modulus:

1) $\overline{3 + 6i} =$

2) $|1 + 2i| =$

Division:

1) $1/i =$

2) $1/(1 + i) =$

Exp:

1) $e^{1+i\pi} =$

2) $e^{2-3i} =$

Log:

1) $\log(i) =$

2) $\log(3 + 4i) =$

Arbitrary Exp:

1) $2^i =$

2) $i^i =$

Exp and Log rules:

1) $(e^{1+i} \cdot e^{1-i})^{2-i} =$

2) $\log((3 + 4i)^{(1-i)}) =$

Square root:

1) Find the squareroot of $z = 3 + 4i$

2) $\sqrt{i} =$

N-th roots:

1) Find all fourth roots of 1

2) Find all third roots of $8i$