COMPLEX

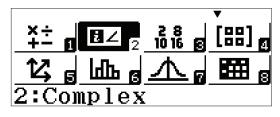
Complex Number calculations can be executed in the Complex Mode.

From the Main Menu, use the arrow keys to highlight the Complex icon, then press \blacksquare or press 2.

In Complex Mode, operations can be carried out using the imaginary unit (i). To add complex numbers, press 2 + 3 ENG (i) + 5 - 7 ENG (i) \equiv .

The argument of the complex number 1+2i, can be found by taking the arctan $(y/x) = 63.4349^{\circ}$ or by using the Argument command.

Press \bigcirc 1 (Argument) 1 + 2 \bigcirc \bigcirc (i) \bigcirc =.



$$2+3i+5-7i$$
 7-4i

$$(3-2\tilde{i})(5+6i^{i})$$
27+8 i

1:Argument 2:Conjugate 3:Real Part 4:Imaginary Part

Arg(1+2*i*)
63.43494882

COMPLEX

COMPLEX FORM AND POLAR FORM

To convert a complex number into polar form, press

 $\textbf{2} + \textbf{5} \text{ ENG } (i) \text{ OPTN } \textbf{ 1} (\blacktriangleright r \angle \theta) \textbf{ 1} .$

To convert any polar form of a complex number, use the r theta command or type in the angle in polar form.

Press AC 2 SHIFT ENG (\angle) 3 3 0 OPTN \bigcirc 2 (\triangleright a+bi) \equiv .

Alternately, simply type in the angle in polar form by pressing $2 \text{ SHIFT} \text{ ENG } (\angle) 3 3 0 \equiv .$

These calculations can also be accomplished in radian mode. To change to radian mode, press SHIFT WEND (SET UP) 2 (Angle Unit) 2 (Radian).

$$2 \angle \frac{11}{6} \pi$$