

Personal Skills 1



**Absolute value of complex number**

Learning outcomes. Deliberate write graph and find the absolute value of complex number in the form  $a + bi$ , or  $(a, b)$  and the properties of the complex to use in solving the problem

Intended destination Find absolute value of complex numbers by using the properties of the complex.

Name ..... Class. ....No.....

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Find absolute value of complex numbers by using the properties of the complex.

| No | Problem                          | $ z $   |
|----|----------------------------------|---|
| 1  | $Z = \frac{3+4i}{4-3i}$          | $\left  \frac{3+4i}{4-3i} \right  = \frac{ 3+4i }{ 4-3i } = \frac{\sqrt{3^2+4^2}}{\sqrt{4^2+(-3)^2}} = \frac{\sqrt{9+16}}{\sqrt{16+9}} = \frac{\sqrt{25}}{\sqrt{25}} = \frac{5}{5} = 1$ |
| 2  | $z = \frac{(1+3i)}{4i(1-3i)}$    |   |
| 3  | $.z = -2i(1-i)^2(1+\sqrt{3}i)^3$ |   |
| 4  | $z^2 = (1+4i)^4$                 |   |
| 5  | $z^3 = i^{178} + 3i^{165}$       |   |
| 6  | $z^2 = \frac{2-i}{(1+i)(1-2i)}$  |   |

Summary score

Score 10 points made ..... points

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