ReEdited BY

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ETHIOPIA

Abune Gorgorios Schools

Name_____ No _____

Subject:- Mathematics Grade 11 Section _____

2012EC SECOND SEMESTER Worksheet 3 FOR GRADE 11

Direction I: Write "True" if the statement is correct and write "False" if the statement is incorrect on the blank space provided.

_____1. $\sqrt{-7}$ and -7 are imaginary number.

_____2. The product of two imaginary number is the real number.

_____3. The set of complex number is closes under addition.

4. (3+2i) (3-2i) = 13

5. 4-I is the conjugate complex for a complex number 4+i.

Direction II. Give Short answer

6. Find the product of I x 2i

7. Simplify the following $\sqrt{-9}$

8. Determine the value of a and 6 so that a +bi = -2 +$\sqrt{5}$

9. Find the real and the imaginary part of Z = 3-2i

10. Express $\frac{1}{i\sqrt{2}} + (6 + \frac{1}{\sqrt{-8}})$ in the standard form

11. Let Z = 3 +2i and Z_2 = 5 +11i then $Z_1 Z_2$ is equal to _____

12. Realize the denomination $\frac{6}{4-3i}$

13. Let $Z_1 = p - qi$ and $Z_2 = p + qi$ then $Z_1 Z_2$

14. If Z= a+bi, then its Multiplicative inverse is equal to _____

Direction III. Work out

15. Let Z = a +bi, then find

    A. Z

    B. Z + Z

    C. Z - Z

16. Let Z_1 = a +bi and Z_2 = x+yi, then find

    A. $\overline{Z_1 + Z_2}$

    B. $\overline{Z_1 Z_1}$

17. Let $Z_1 = \sqrt{-4} + \sqrt{9}$ and $Z_2 = \sqrt{-9} + \sqrt{4}$ then find

    A. $Z_1 + Z_2$

    B. $Z_1 - Z_2$

    C. $Z_1 Z_2$

    D. $\frac{Z_1}{Z_2}$