Name : _____

Absolute Value

Sheet 1

Find the absolute value of each complex number.

1) $2 + i$

2) 7

3) $8 - \sqrt{-36}$

4) $-1 + \sqrt{-9}$

5) $\frac{1}{5}(-3 + 4i)$

6) $\sqrt{100} - 2i$

7) $-6i$

8) $7 + 5i$

9) $4(-5 - 3i)$

10) The absolute value of z is

a) $\sqrt{z}$ b) $\sqrt{\bar{z}}$ c) $\sqrt{z\,\bar{z}}$ d) $\sqrt{\frac{\bar{z}}{z}}$

11) The absolute value of the complex number $3 + bi$ is $\sqrt{130}$. What is the value of b?

a) $b = \pm 11$ b) $b = 121$ c) $b = \pm 3$ d) $b = 9$

12) What is the absolute value of the complex number $(9 + 2i) + (3 + 3i)$?

a) 169 b) 144 c) 25 d) 13

Name : _____

Answer key

Absolute Value

Sheet 1

Find the absolute value of each complex number.

1) $2 + i$

$\sqrt{5}$

2) 7

7

3) $8 - \sqrt{-36}$

10

4) $-1 + \sqrt{-9}$

$\sqrt{10}$

5) $\frac{1}{5}(-3 + 4i)$

1

6) $\sqrt{100} - 2i$

$2\sqrt{26}$

7) $-6i$

6

8) $7 + 5i$

$\sqrt{74}$

9) $4(-5 - 3i)$

$4\sqrt{34}$

10) The absolute value of z is

a) $\sqrt{z}$ b) $\sqrt{\bar{z}}$ c) ~~$\sqrt{z\,\bar{z}}$~~ d) $\sqrt{\frac{\bar{z}}{z}}$

11) The absolute value of the complex number $3 + bi$ is $\sqrt{130}$. What is the value of b?

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