

Assessment

Mathematics: Lesson 12



Question 1

Simplify the power of i . Choose the correct answer.

$$i^{35}$$

A. 1

B. i

C. -1

D. $-i$

Question 2

Perform the indicated operation. Choose the correct answer.

$$(6 + \sqrt{-8}) + (8 - \sqrt{-72})$$

A. $14 - 4i\sqrt{5}$

B. $14 + 4\sqrt{2}$

C. $14 + 4\sqrt{5}$

D. $14 - 4i\sqrt{2}$

Question 3

Perform the indicated operation. Choose the correct answer.

$$(8 - 3i) \div i$$

A. $3 + 8i$

B. $3 - 8i$

C. $-3 - 8i$

D. $-8 + 3i$

Question 4

Perform the indicated operation. Choose the correct answer.

$$(9 + 7i) - (2 + 7i) + (9 + 2i)$$

A. $16 + 16i$

B. $16 + 2i$

C. $-2 - 2i$

D. $-2 + 2i$

Question 5

Perform the indicated operation. Choose the correct answer.

$$(4 + 8i)(9 + 5i)$$

A. $76 + 52i$

B. $40i^2 - 92i - 4$

C. $-4 - 94i$

D. $-4 + 92i$

Question 6

Perform the indicated operation. Choose the correct answer.

$$2 \div (5 - 3i)$$

A. $\frac{5}{8} - \frac{3}{8}i$

B. $\frac{5}{8} + \frac{3}{8}i$

C. $\frac{5}{17} + \frac{3}{17}i$

D. $\frac{5}{17} - \frac{3}{17}i$

Question 7

Perform the indicated operation. Choose the correct answer.

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

A. $-1 + 2i$

B. $1 + 2i$

C. $7 - 12i$

D. $-2 + 3i$

Question 8

Perform the indicated operation. Choose the correct answer.

$$(2 + 5i)(3 - 2i)$$

A. $-4 + 11i$

B. $16 - 19i$

C. $c - 10i$

D. $16 + 11i$

Question 9

Perform the indicated operation. Choose the correct answer.

$$(2 + 5i) \div (3 + i)$$

A. $\frac{2}{3} + 5i$

B. $\frac{3}{10} + \frac{13}{10}i$

C. $\frac{11}{10} + \frac{13}{10}i$

D. $\frac{11}{8} + \frac{13}{8}i$

Question 10

Perform the indicated operation. Choose the correct answer.

$$(3 - 3i) \div (3 + 4i)$$

A. $-\frac{3}{25} - \frac{21}{25}i$

B. $3 - 3i$

C. $\frac{3}{7} - 3i$

D. $\frac{3}{25} - \frac{21}{25}i$