

M219  
COMPLEX NUMBERS

2

For  $i = \sqrt{-1}$ , what is the sum  $(7 + 3i) + (-8 + 9i)$  ?

A)  $-1 + 12i$   
 B)  $-1 - 6i$   
 C)  $15 + 12i$   
 D)  $15 - 6i$

3

What is the sum of the complex numbers  $2 + 3i$  and  $4 + 8i$ , where  $i = \sqrt{-1}$  ?

A) 17  
 B)  $17i$   
 C)  $6 + 11i$   
 D)  $8 + 24i$

4

Which of the following complex numbers is equal to  $(5 + 12i) - (9i^2 - 6i)$ , for  $i = \sqrt{-1}$  ?

A)  $-14 - 18i$   
 B)  $-4 - 6i$   
 C)  $4 + 6i$   
 D)  $14 + 18i$

14

What is the sum of the complex numbers  $6 + 5i$  and  $8 + 3i^2$  ? (Note:  $i = \sqrt{-1}$ )

A)  $11 + 5i$   
 B)  $14 - 2i$   
 C)  $14 + 8i^3$   
 D)  $17 + 5i$

4

In the complex number system, which of the following is equal to  $(14 - 2i)(7 + 12i)$ ? (Note:  $i = \sqrt{-1}$ )

A) 74  
 B) 122  
 C)  $74 + 154i$   
 D)  $122 + 154i$

11

Which of the following complex numbers is equivalent to  $\frac{3 - 5i}{8 + 2i}$  ? (Note:  $i = \sqrt{-1}$ )

A)  $\frac{3}{8} - \frac{5i}{2}$     C)  $\frac{7}{34} - \frac{23i}{34}$   
 B)  $\frac{3}{8} + \frac{5i}{2}$     D)  $\frac{7}{34} + \frac{23i}{34}$

1 A  
 2 C  
 3 D

4 A  
 5 D  
 6 C