

NAME: \_\_\_\_\_

1. 080818a  
The greatest common factor of  $4a^2b$  and  $6ab^3$  is  
[A]  $24a^3b^4$  [B]  $2ab^2$   
[C]  $2ab$  [D]  $12ab$
2. 060421a, P.I. A.A.20  
If  $3x$  is one factor of  $3x^2 - 9x$ , what is the other factor?  
[A]  $x^2 - 6x$  [B]  $x - 3$   
[C]  $3x$  [D]  $x + 3$
3. 060318a, P.I. A.A.20  
If one factor of  $56x^4y^3 - 42x^2y^6$  is  $14x^2y^3$ , what is the other factor?  
[A]  $4x^2 - 3y^3$  [B]  $4x^2 - 3y^2$   
[C]  $4x^2y - 3xy^2$  [D]  $4x^2y - 3xy^3$
4. 010004a, P.I. A.A.20  
Which expression is a factor of  $x^2 + 2x - 15$ ?  
[A]  $(x - 3)$  [B]  $(x - 5)$   
[C]  $(x + 15)$  [D]  $(x + 3)$
5. 060206a, P.I. A.A.20  
Which expression is a factor of  $n^2 + 3n - 54$ ?  
[A]  $n - 9$  [B]  $n + 6$   
[C]  $n + 9$  [D]  $n^2 + 9$
6. 010814a, P.I. A.A.20  
What are the factors of  $x^2 - 5x + 6$ ?  
[A]  $(x + 6)$  and  $(x - 1)$   
[B]  $(x - 2)$  and  $(x - 3)$   
[C]  $(x - 6)$  and  $(x + 1)$   
[D]  $(x + 2)$  and  $(x + 3)$
7. 010318a, P.I. A.A.20  
What are the factors of  $x^2 - 10x - 24$ ?  
[A]  $(x - 12)(x + 2)$  [B]  $(x + 12)(x - 2)$   
[C]  $(x - 4)(x + 6)$  [D]  $(x - 4)(x - 6)$
8. 060623a, P.I. A.A.20  
Factored completely, the expression  $2y^2 + 12y - 54$  is equivalent to  
[A]  $(y + 6)(2y - 9)$  [B]  $2(y + 9)(y - 3)$   
[C]  $(2y + 6)(y - 9)$  [D]  $2(y - 3)(y - 9)$
9. 080806ia, P.I. A.A.20  
Factored completely, the expression  $2x^2 + 10x - 12$  is equivalent to  
[A]  $2(x + 6)(x - 1)$  [B]  $2(x - 2)(x - 3)$   
[C]  $2(x - 6)(x + 1)$  [D]  $2(x + 2)(x + 3)$
10. 060535a, P.I. A.A.20  
Factor completely:  $3x^2 + 15x - 42$

[1] C \_\_\_\_\_

[2] B \_\_\_\_\_

[3] A \_\_\_\_\_

[4] A \_\_\_\_\_

[5] C \_\_\_\_\_

[6] B \_\_\_\_\_

[7] A \_\_\_\_\_

[8] B \_\_\_\_\_

[9] A \_\_\_\_\_

[2]  $3(x + 7)(x - 2)$ , and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or [1] A conceptual error is made, such as incomplete factoring.

or [1]  $3(x + 7)(x - 2)$ , but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[10] incorrect procedure. \_\_\_\_\_