

**A.A.20: Factoring Polynomials 3: Factor algebraic expressions completely, including trinomials with a lead coefficient of one (after factoring a GCF)**

1 Factor:  $ab^2 - ab$

10 Factor:  $6 + x - x^2$

2 Factor:  $x^2 - 10x + 21$

11 Factor:  $2a^2 - 10a - 28$

3 Factor:  $a^2 - 2a + 1$

12 Factor:  $3x^2 - 6x - 105$

4 Factor:  $a^2 - a - 2$

13 Factor:  $a^3 - 3a^2 - 10a$

5 Factor:  $a^2 - a - 6$

14 Factor:  $x^3 + 8x^2 + 7x$

6 Factor:  $x^2 + x - 12$

15 Factor:  $2x^8 + 16x^7 + 32x^6$

7 Factor:  $a^2 + 4a - 21$

8 Factor:  $x^2 + x - 30$

9 Factor:  $21 - 4c - c^2$

**A.A.20: Factoring Polynomials 3: Factor algebraic expressions completely, including trinomials with a lead coefficient of one (after factoring a GCF)****Answer Section**

1 ANS:

$$ab(b-1)$$

PTS: 2

REF: 010003al

2 ANS:

$$(x-3)(x-7)$$

PTS: 2

REF: 019004al

3 ANS:

$$(a-1)^2$$

PTS: 2

REF: 119404al

4 ANS:

$$(a-2)(a+1)$$

PTS: 2

REF: 119404al

5 ANS:

$$(a-3)(a+2)$$

PTS: 2

REF: 019506al

6 ANS:

$$(x+4)(x-3)$$

PTS: 2

REF: 069503al

7 ANS:

$$(a+7)(a-3)$$

PTS: 2

REF: 019604al

8 ANS:

$$(x+6)(x-5)$$

PTS: 2

REF: 060003al

9 ANS:

$$-(c+7)(c-3)$$

PTS: 2

REF: 030003al

10 ANS:

$$-(x-3)(x+2)$$

PTS: 2

REF: 089304al

11 ANS:

$$2(a-7)(a+2)$$

PTS: 2

REF: 089803al

12 ANS:  
 $3(x-7)(x+5)$

PTS: 2 REF: 099806al

13 ANS:  
 $a(a-5)(a+2)$

PTS: 2 REF: 069903al

14 ANS:  
 $x(x+7)(x+1)$

PTS: 2 REF: 019105al

15 ANS:  
 $2x^6(x+4)(x+4)$

PTS: 2 REF: 019004al