

**A.SSE.A.2: Factoring Polynomials 8**

1 Factor:  $a^2 + 3ab + 2b^2$

10 Factor:  $6a^2 + 7ax - 3x^2$

2 Factor:  $a^4 - 5a^2b^2 + 4b^4$

11 Factor:  $6a^2 + 5ab - 4b^2$

3 Factor:  $ax^2 - 4a^2x + 4a^3$

12 Factor:  $6a^2 + 10ab - 4b^2$

4 Factor:  $2a^2b + ab^2 - b^3$

13 Factor:  $6a^2 - 11ab + 3b^2$

5 Factor:  $2a^2 + 3ab - 2b^2$

14 Factor:  $7x^2 + 25xy - 12y^2$

6 Factor:  $2x^2 - 3xy - 2y^2$

15 Factor:  $8x^2 - 8xy - 6y^2$

7 Factor:  $2a^2 + ab - 3b^2$

16 Factor:  $12a^2 + 12ab + 3b^2$

8 Factor:  $2a^2 - 5ab + 2b^2$

17 Factor:  $12x^2 + 7xy - 10y^2$

9 Factor:  $3a^2 + 6ab - 24b^2$

18 Factor:  $15a^2 - 26ab - 24b^2$

19 Factor:  $16x^4 + 16x^2y^2 + 16y^4$

28 Factor:  $a^8 - b^8$

20 Factor:  $\frac{x^2}{4} - xy + y^2$

29 Factor:  $(x + y)^4 - 1$

21 Factor:  $ab^2 - ab$

30 Factor:  $4a^2b^2 - (a^2 + b^2 - c^2)^2$

22 Factor:  $9x^2 - y^2$

23 Factor:  $6a^2 - 6b^2$

24 Factor:  $28a^2 - 7b^2$

25 Factor:  $8a^3 - 32ab^2$

26 Factor:  $x^4 - y^4$

27 Factor:  $16a^4 - b^8$

**A.SSE.A.2: Factoring Polynomials 8**  
**Answer Section**

1 ANS:  
 $(a + 2b)(a + b)$

REF: 019604al

2 ANS:  
 $(a + 2b)(a - 2b)(a + b)(a - b)$

REF: 060003al

3 ANS:  
 $a(x - 2a)(x - 2a)$

REF: 069802al

4 ANS:  
 $b(2a - b)(a + b)$

REF: 069404al

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

REF: 069404al

6 ANS:  
 $(2x + y)(x - 2y)$

REF: 019506al

7 ANS:  
 $(2a + 3b)(a - b)$

REF: 019703al

8 ANS:  
 $(2a - b)(a - 2b)$

REF: 099403al

9 ANS:  
 $3(a - 2b)(a + 4b)$

REF: 010602al

10 ANS:  
 $(3a - x)(2a + 3x)$

REF: 089803al

11 ANS:  
 $(3a + 4b)(2a - b)$

REF: 039506al

12 ANS:  
 $2(3a - b)(a + 2b)$

REF: 019806al

13 ANS:  
 $(2a - 3b)(3a - b)$

REF: 069607al

14 ANS:  
 $(7x - 3y)(x + 4y)$

REF: 039703al

15 ANS:  
 $2(2x - 3y)(2x + y)$

REF: 099503al

16 ANS:  
 $3(2a + b)(2a + b)$

REF: 069607al

17 ANS:  
 $(3x - 2y)(4x + 5y)$

REF: 099904al

18 ANS:  
 $(5a - 12b)(3a + 2b)$

REF: 090502al

19 ANS:  
 $16(x^2 + y^2 + xy)(x^2 + y^2 - xy)$

REF: 099403al

20 ANS:  
 $\left(\frac{x}{2} - y\right)\left(\frac{x}{2} - y\right)$

REF: 060003al

21 ANS:  
 $ab(b - 1)$

REF: 010003al

22 ANS:  
 $(3x + y)(3x - y)$

REF: 019506al

23 ANS:  
 $6(a+b)(a-b)$

REF: 099607al

24 ANS:  
 $7(2a+b)(2a-b)$

REF: 069607al

25 ANS:  
 $8a(a+2b)(a-2b)$

REF: 069503al

26 ANS:  
 $(x^2+y^2)(x+y)(x-y)$

REF: 010602al

27 ANS:  
 $(4a^2+b^4)(2a+b^2)(2a-b^2)$

REF: 069707al

28 ANS:  
 $(a^4+b^4)(a^2+b^2)(a+b)(a-b)$

REF: 010502al

29 ANS:  
 $((x+y)^2+1)(x+y+1)(x+y-1)$

REF: 039703al

30 ANS:  
 $(a+b+c)(a+b-c)(a-b+c)(-a+b+c)$

REF: 039703al