A.SSE.A.2: Factoring Polynomials 9

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21   Factor: $ab^2 - ab$

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: $16a^4 - b^8$

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

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

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

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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:
$\left(\dfrac{x}{2} - y\right)\left(\dfrac{x}{2} - y\right)$

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