

A2.A.7: Factoring Polynomials 2: Factor polynomial expressions completely using common factor extraction, difference of perfect squares, quadratic trinomials

1 Factor completely: $10ax^2 - 23ax - 5a$

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

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

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

3 Factor: $6x^2 - 13xy + 6y^2$

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

4 Factor: $6a^2 + 13ab + 6b^2$

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

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

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

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

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

7 Factor: $a^2 + ab - 12b^2$

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

8 Factor: $12a^2 - 5ab - 3b^2$

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

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

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

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

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

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

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

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

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

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

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Answer Section

1 ANS:

$$10ax^2 - 23ax - 5a = a(10x^2 - 23x - 5) = a(5x + 1)(2x - 5)$$

PTS: 2

REF: 081028a2

2 ANS:

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

PTS: 4

REF: 019306al

3 ANS:

$$(3x - 2y)(2x - 3y)$$

PTS: 6

REF: 039303al

4 ANS:

$$(3a + 2b)(2a + 3b)$$

PTS: 4

REF: 069303al

5 ANS:

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

PTS: 3

REF: 089304al

6 ANS:

$$a(a - 1 - ab - b)$$

PTS: 3

REF: 089304al

7 ANS:

$$(a + 4b)(a - 3b)$$

PTS: 2

REF: 119304al

8 ANS:

$$(4a - 3b)(3a + b)$$

PTS: 10

REF: 019405al

9 ANS:

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

PTS: 2

REF: 039404al

10 ANS:

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

PTS: 2

REF: 069404al

11 ANS:

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

PTS: 2

REF: 069404al

- 12 ANS:
 $(2a - b)(a - 2b)$
PTS: 2 REF: 099403al
- 13 ANS:
 $(2x + y)(x - 2y)$
PTS: 2 REF: 019506al
- 14 ANS:
 $(3a + 4b)(2a - b)$
PTS: 2 REF: 039506al
- 15 ANS:
 $2(2x - 3y)(2x + y)$
PTS: 2 REF: 099503al
- 16 ANS:
 $(a + 2b)(a + b)$
PTS: 2 REF: 019604al
- 17 ANS:
 $(2a - 3b)(3a - b)$
PTS: 2 REF: 069607al
- 18 ANS:
 $(2a + 3b)(a - b)$
PTS: 2 REF: 019703al
- 19 ANS:
 $(7x - 3y)(x + 4y)$
PTS: 2 REF: 039703al
- 20 ANS:
 $2(3a - b)(a + 2b)$
PTS: 2 REF: 019806al
- 21 ANS:
 $(3a - x)(2a + 3x)$
PTS: 2 REF: 089803al
- 22 ANS:
 $(3x - 2y)(4x + 5y)$
PTS: 3 REF: 099904al
- 23 ANS:
 $(a + 2b)(a - 2b)(a + b)(a - b)$
PTS: 2 REF: 060003al

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

PTS: 2 REF: 090502a1

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

PTS: 2 REF: 010602a1