ALG2 Test prep. Page 279 # 18 - 48 all Solutions

(18) $3a^2bx + 15cx^2y + 25ad^3y$
prime

(19.) $10a^3b - 12a^2b^2$
$2a^2b(5a - 6b)$

(20.) $w^2 + 10w + 9$
$(w + 9)(w + 1)$

(21.) $16n^2 + 25m^2$
prime

(22.) $3x^2 - 3y^2$ DIFF. of squares
$3(x^2 - y^2) \rightarrow 3(x+y)(x-y)$

(23.) $y^2 - 12y + 20$
$(y - 10)(y - 2)$

(24.) $12ab^3 - 8a^2b^2 + 10a^5b^3$
$2ab^2(6b - 4a + 5a^4b)$

(25.) $y^2 + 7y + 6$
$(y + 6)(y + 1)$

(26.) $x^2 - 5x + 4$
$(x - 4)(x - 1)$

(27.) $x^4 - y^2$ DIFF. of squares
$(x^2 + y)(x^2 - y)$

(28.) $6m^2 + 13m + 6$
$(3m + 2)(2m + 3)$

(29.) $3n^2 + 21n - 24$
$3(n^2 + 7n - 8) \rightarrow 3(n + 8)(n - 1)$

(30.) $3ay^2 + 9a$
$3a(y^2 + 3)$

(31.) $3a^2 - 27b^2$
$3(a^2 - 9b^2) \rightarrow 3(a - 3b)(a + 3b)$

(32.) $a^2 + 8ab + 16b^2$
$(a + 4b)(a + 4b)$

(33.) $5x - 14 + x^2$ RE-ORDER $\rightarrow x^2 + 5x - 14$
$(x + 7)(x - 2)$

(34.) $2x^2 + 3x + 1$
$(2x + 1)(x + 1)$

(35.) $5x^2 + 15x - 10$
$5(x^2 + 3x - 2) \rightarrow 5(x - 2)(x - 1)$

(36.) $2a^2 + 13a - 7$
$(2a - 1)(a + 7)$

(37.) $3a^2 + 24a + 45$
$3(a^2 + 8a + 15)$
$3(a + 5)(a + 3)$

(38) $12z^2 - z - 6$

$(4z - 3)(3z + 2)$

(39) $m^2n^2 + mn + 1$ prime

~~$(mn + 1)(mn + 1)$~~

(40) $(8ax - 6x)(-12a + 9)$

Grouping Four terms

$2x(4a - 3) - 3(4a - 3)$

$(4a - 3)(2x - 3)$

(41) $(4ax + 14ay)(-10bx - 35by)$

$2a(2x + 7y) - 5b(2x + 7y)$

$(2x + 7y)(2a - 5b)$

(42) $(10w^2 - 14wv)(-15w + 21v)$

$2w(5w - 7v) - 3(5w - 7v)$

$(5w - 7v)(2w - 3)$

(43) $81y^2 - 49$ Diff of Squares

$(9y + 7)(9y - 7)$

(44) $6a^2 + 27a - 15$

$3(2a^2 + 9a - 5) \rightarrow 3(2a - 1)(a + 5)$

(45) $2x^4 + 4x^3 + 2x^2$

$2x^2(x^2 + 2x + 1)$

$2x^2(x + 1)(x + 1)$

(46) $m^4 - 1$ Diff of Squares

$(m^2 - 1)(m^2 + 1)$

(47) $y^4 - 16$

$(y^2 - 4)(y^2 + 4)$

(48) $(7mx^2 + 2nx^2)(-7my^2 - 2ny^2)$ Grouping

$x^2(7m + 2n) - y^2(7m + 2n)$

$(7m + 2n)(x^2 - y^2)$

That's all Folks!

¡Buenos Suerte Mañana!