p 420 7.1 odd

(1) $4, 8x$ GCF = 4

(3) $12x^2, 8x$ GCF = $4x$

(5) $-2x^4, 6x^3$ GCF = $2x^3$

(7) $9y^5, 18y^2, -3y$ GCF = $3y$

(9) xy, xy^2, xy^3 GCF = xy

(11) $16x^5y^4, 8x^6y^3, 20x^4y^5$ GCF = $4x^4y^3$

(13) $8x + 8$ $= 8(x+1)$

(15) $4y - 4$ $= 4(y-1)$

(17) $5x + 30$ $= 5(x+6)$

(19) $30x - 12$ $= 6(5x-2)$

(21) $x^2 + 5x$ $= x(x+5)$

(23) $18y^2 + 12$ $= 6(3y^2+2)$

(25) $14x^3 + 21x^2$ $= 7x^2(x+3)$

(27) $13y^2 - 25y$ $= y(13y - 25)$

(29) $9y^4 + 27y^6$ $= 9y^4(1 + 3y^2)$

(31) $8x^2 - 4x^4$ $= 4x^2(2 - x^2)$

(33) $12y^2 + 16y - 8$ $= 4(3y^2 + 4y - 2)$

(35) $9x^4 + 18x^3 + 6x^2$ $= 3x^2(3x^2 + 6x + 2)$

(37) $100y^5 - 50y^3 + 100y^2$ $= 50y^2(2y^3 - y + 2)$

(39) $10x - 20x^2 + 5x^3$ $= 5x(2 - 4x - x^2)$

(41) $11x^2 - 23$ Cannot be Factored

(43) $6x^3y^2 + 9xy$ $= 3xy(2x^2y + 3)$

(45) $30x^2y^3 - 10xy^2 + 20xy$ $= 10xy(3x^2y^2 - y + 2)$

(47) $32x^3y^2 - 24x^3y - 16x^2y$ $= 8x^2y(4xy - 3x - 16)$

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Note: Factors may be written in any order

(49) $x(x+5)+3(x+5)$

$=(x+3)(x+5)$ or $(x+5)(x+3)$

(51) $x(x+2)-4(x+2)$

$=(x-4)(x+2)$

(53) $x(y+6)-7(y+6)$

$=(x-7)(y+6)$

(55) $3x(x+y)-(x+y)$

$=(3x-1)(x+y)$

(57) $4x(3x+1)+3x+1$

$=4x(3x+1)+1(3x+1)$

$=(4x+1)(3x+1)$

(59) $7x^2(5x+4)+5x+4$

$=7x^2(5x+4)+1(5x+4)$

$=(7x^2+1)(5x+4)$

(61) $x^2+2x+4x+8$

$=x(x+2)+4(x+2)$

$=(x+4)(x+2)$

(63) $x^2+3x-5x-15$

$=x(x+3)-5(x+3)$

$=(x-5)(x+3)$

(65) $x^3-2x^2+5x-10$

$=x^2(x-2)+5(x-2)$

$=(x^2+5)(x-2)$

(67) x^3-x^2+2x-2

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

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

(69) $xy+5x+9y+45$

$=x(y+5)+9(y+5)$

$=(x+9)(y+5)$

(71) $xy-x+5y-5$

$=x(y-1)+5(y-1)$

$=(x+5)(y-1)$

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(73) $3x^2 - 6xy + 5xy - 10y^2$

$= 3x(x-2y) + 5y(x-2y)$

$= \boxed{(3x+5y)(x-2y)}$

(75) $3x^3 - 2x^2 - 6x + 4$

$= x^2(3x-2) - 2(3x-2)$

$= \boxed{(x^2-2)(3x-2)}$

(77) $x^2 - ax - bx + ab$

$= x(x-a) - b(x-a)$

$= (x-b)(x-a)$

(79) $24x^3y^3z^3 + 30x^2y^2z + 18x^2yz^2$

$= \boxed{6x^2yz(4xy^2z^2 + 5y + 3z)}$

(81) $x^3 - 4 + 3x^2y - 12y$

$= x^3 + 3x^2y - 4 - 12y$

$= x^3(1+3y) - 4(1+3y)$

$= \boxed{(x^3-4)(1+3y)}$

(83) $4x^5(x+1) - 6x^3(x+1) - 8x^2(x+1)$

$= (4x^5 - 6x^3 - 8x^2)(x+1)$

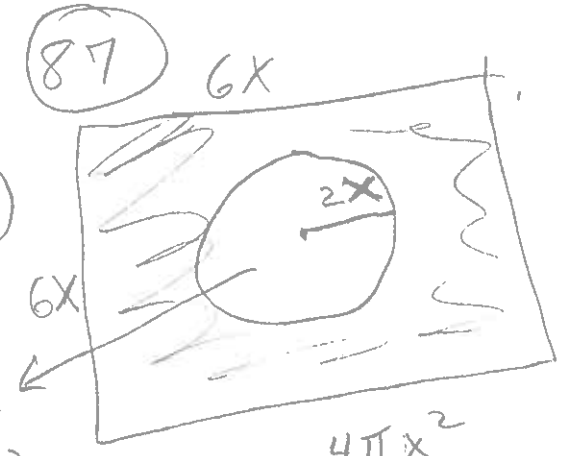
$= \boxed{2x^2(2x^3 - 3x - 4)(x+1)}$

(85) $3x^5 - 3x^4 + x^3 - x^2 + 5x - 5$

$= 3x^4(x-1) + x^2(x-1) + 5(x-1)$

$= (3x^4 + x^2 + 5)(x-1)$

(87)



$A_0 = \pi r^2$

$A_0 = \pi(2x)^2$

$= \pi(4x^2)$

$= 4\pi x^2$

$6x \cdot 6x - 4\pi x^2$

$= 36x^2 - 4\pi x^2$

$= \boxed{4x^2(9-\pi)}$