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| <p>5. Multiply: The Sum and Difference $(A + B)(A - B) = A^2 - B^2$ (a) $(x + 3)(x - 3)$ (b) $(5x + 7y)(5x - 7y)$ (c) $(5ab^2 - 4a)(5ab^2 + 4a)$</p> | 69 73 77 79 81 83 89 |
| <p>6. Evaluate: Let $f(x) = x - 3$ and $g(x) = x - 7$ Find (a) $(fg)(x)$ (b) $(fg)(2)$</p> | 95 |
| Section 5.3 | |
| <p>1. Find GCF (a) 24 & 36 (b) x^3 & $-x^5$ (c) $15x^3y^2$ & $25x^4y^3$</p> | |
| <p>1. Factor by factoring out GCF. (a) $9x^4 + 21x^2$ (b) $15x^3y^2 - 25x^4y^3$ (c) $-2x^3 + 10x^2 - 6x$</p> | 1,3 5,9 13 17 21 23 27 |
| <p>2. Factor: Multi term (Binomial) (a) $3(x - 4) + 7a(x - 4)$ (b) $7x(a + b) - (a + b)$</p> | 35,37 39,41 43 |
| <p>3. Factor by Grouping Method (a) $x^3 - 4x^2 + 5x - 20$ (b) $4x^2 + 20x - 3xy - 15y$</p> | 45,49 51,53 55,59 63,67 |
| Section 5.4 | |
| <p>1. Factor Trinomial. (a) $x^2 + 6x + 8$ (b) $x^2 - 9x + 20$ (c) $y^2 + 19y - 66$ (d) $x^2 - 5xy + 6y^2$ (e) $3x^3 - 15x^2 - 42x$ (f) $x^6 - 7x^3 + 10$</p> | 1,5 9,13 17,21 25,29 33,37 41 |
| <p>2. Factor Trinomial by Grouping. (AC method) (a) $3x^2 - 20x + 28$ (b) $8x^2 - 22x + 5$ (c) $6x^6 + 19x^5 - 7x^4$ (d) $3y^4 + 10y^2 - 8$</p> | 45,49 55,63 67 |

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| Section 5.5 | | |
| 1. Factoring the difference of two squares. (a) $16x^2 - 25$ (b) $100y^6 - 9x^4$ (c) $16x^4 - 81$ | | 1,5,9 13,17 21,25 29,33 37,41 45 |
| 2. Factoring Perfect Square Trinomials. (a) $x^2 + 6x + 9$ (b) $x^2 - 12x + 36$ (c) $x^2 - 16x + 64$ | | 49,51 53,55 59,63 |
| 3. Factoring: Special form $x^2 + 10x + 25 - y^2$ | | 65 67 71 |
| 4. Factoring: The Sum of Two Cubes & The Difference of Two Cubes (a) $x^3 + 27$ (b) $x^3 - 8$ | | 75,77 79,81 83,85 |
| Section 5.6 | | |
| 1. Factoring a Polynomial (a) $3x^3 - 30x^2 + 75x$ (b) $3x^2y - 12xy - 36y$ (c) $16a^2x - 25y - 25x + 16a^2y$ (d) $x^2 - 36a^2 + 20x + 100$ | | 1,2 3,5 7,9 15,21 27,35 45,59 65 |
| Section 5.7 | | |
| 1. Solve by Factoring method (a) $2x^2 - 9x = 5$ (b) $3x^2 = 2x$ (c) $x^2 + 7 = 10x - 18$ (d) $(x - 2)(x + 3) = 6$ | | 1,5 9 13 17 21 25 37 41 |