

1.1 Greatest Common Factor

Name _____

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| Factor out the greatest common factor. | |
| 1. $3x + 6$ | 2. $4x + 12$ |
| 3. $6x - 4$ | 4. $15x - 6$ |
| 5. $2x^2 + 7x$ | 6. $9x^2 - 6x$ |
| 7. $8x^3y^2 + 12x^2y$ | 8. $6x^4y^3 - 9x^2y$ |
| 9. $2x^2 + 8x - 6$ | 10. $14x^2 + 7x - 28$ |
| 11. $2x^2y + 10xy - 6y$ | 12. $15xy^2 - 10xy + 20x$ |
| 13. $20x^2y - 15xy^2 + 5x$ | 14. $6x^2y^2 + 18x^2y - 6y$ |
| Answers: 1. $3(x + 2)$; 3. $2(3x - 2)$; 5. $x(2x + 7)$; 7. $4x^2y(2xy + 3)$; 9. $2(x^2 + 4x - 3)$; 11. $2y(x^2 + 5x - 3)$; 13. $5x(4xy - 3y^2 + 1)$ | |

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| Factor out the greatest common binomial factor. | |
| 15. $a(x + 1) + 3(x + 1)$ | 16. $b(x + 4) - 2(x + 4)$ |
| 17. $x(a - 5) - 4(a - 5)$ | 18. $x(b + 3) + y(b + 3)$ |
| 19. $x(x - 2) + 3(x - 2)$ | 20. $x(x + 7) - 2(x + 7)$ |
| 21. $x(y + 1) + (y + 1)$ | 22. $y(a + 2) + (a + 2)$ |
| Answers: 15. $(a + 3)(x + 1)$; 17. $(x - 4)(a - 5)$; 19. $(x + 3)(x - 2)$; 21. $(x + 1)(y + 1)$ | |