Factoring Using the Greatest Common Factor (ALG.FAC.01)

Factor each expression using the greatest common factor (GCF).

1. $8x + 6$

2. $10m^2 - 5m^7$

3. $-72n^5 - 40n^3$

4. $-8g - 22$

5. $18x^6 + 18x^4 - 12x^3$

6. $14y^3 - 21y^2 + 7y$

7. $12ab + 8b^2$

8. $-30m^2n^3 - 18m^2n$

9. $-15a^2b^2 + 10a^2b - 20b$

10. $-mn^2 - mn + mn^3$

11. $32x^4y^4 - 4x^4y^3 + 20x^4y^2$

12. $-28u^2v^4 - 70u^3 - 7u^2 - 35uv$

13. $8m^6n^4 + 8m^6n^2 - 32m^4n^3 - 8m^4n^2$

14. $15p^2q^3 - 27p^2q^2 + 27p^3q + 15p$

15. $-48g^8h^3 - 24g^6h^4 + 60g^4h^5 - 12g^2h^6$

16. $60m^7n^5 + 5m^7n^2 + 5m^6np^2 + 40m^6n^2$

17. $14a^4b^2c + 35a^3b^3c - 21a^3b^2c^2 - 7a^3b^2c$

18. $-36x^3y^5 + 90x^2y^7 - 18x^2y^5$

Multiply each expression and then factor it using the greatest common factor.

19. $-4ab^3(a^2 + 3b) + 6b^2(a - a^2)$

20. $10x^2(3y - y^3) - 4y(8x^3 - 5x) + 32x^3y$

21. $-4m^2n(3n^3 - 5m^2n + mn) + 2n^3(m^3 - 5n^2 + 12n) - 2m^3(n^3 + n^2)$

22. $6mn(m^2 - 3mn + 2n^2) - 3n^2(4m + mn + 2n^2) + 3n^3(2n - 3m)$