Use the distributive property to write an equivalent expression.

25. $5(5 + c)$ _____   **26.** $-8(y + 2)$ _____   **27.** $(m + 1)9$ _____

28. $-3(2a + 5)$ _____   **29.** $4(y + 3z)$ _____   **30.** $(2a + 3b)4$ _____

Factor and check by multiplying.

31. $9y + 21$ _____   **32.** $14a + 35b$ _____   **33.** $3x + 21y + 12z$ _____

34. $7m + 42n$ _____   **35.** $10c + c$ _____   **36.** $9 + 21z$ _____

37. $8a + 6b + 10c$ _____   **38.** $10x + 25y + 30$ _____   **39.** $36 + 72s + 4t$ _____

Collect like terms.

40. $17c + 6c$ _____   **41.** $3y + 7x + 5y$ _____

42. $3a^2 + 16 + 9a + 2a^2$ _____   **43.** $5m + 11n + 11m + 5n$ _____

44. $\frac{3}{5}z + \frac{2}{5}z + 4z + 9$ _____   **45.** $\frac{3}{10}y + 2y + 7y + \frac{7}{10}y$ _____

Factor completely using the GCF of each expression.

9. $10y^3 - 5y^2 + 15y$

10. $\pi r^2 h + 2\pi r^2$

11. $\frac{1}{2}bh - \frac{1}{2}ah$

12. $14s^2 + 7st$

13. $24a^4x - 18a^3x + 12a^2x^2$

14. $7s^2y - 21xy^2$

15. $8a^2b - 16ab - 24a$

16. $25c^3d - 15c^2d^2 + 5cd^3$

17. $-40r^8s^6 - 16r^9s^5$

18. $21e^3k - 49e^2k^2 + 84k^3$

19. $126w^2x^3yz + 210w^3y^4z^2$

20. $231a^4b^3c^2d - 143ab^2c^3$