

10.5 Paper Practice

Using the Distributive Property

Example 1

Use the Distributive Property to factor each polynomial.

1. $16a + 20b$

2. $15c - 45d$

3. $12x^2 + 50x$

4. $6f^2g + 9f - 21fg$

5. $8h^2j - 16h^2 + 24h^2j^2$

Example 2

6. **BULLETIN BOARD** The area of a rectangular bulletin board is given by the expression $7h - h^2$, where h is the height of the bulletin board. Factor the expression.

7. **ROCKET** The height of a rocket t seconds after it is launched is given by the expression $960t - 16t^2$. Factor the expression.

8. **GEOMETRY** The sum of the interior angle measures of a convex polygon with n sides is given by the expression $180n - 360$. Factor the expression.

Examples 3 and 4**Factor each polynomial.**

9. $ab - 6a + 3b - 18$

10. $cd + 7c - 10d - 70$

11. $5df + 10d + 6f + 12$

12. $12gh - 27g - 8h + 18$

13. $j^2 + 8j + 11j + 88$

14. $5k^2 + 35k - 4k - 28$

15. $m^2 - 2m + 5m - 10$

16. $35m - 49mn + 14n - 10$

17. $18p^2 - 3p + 12p - 2$

18. $2q^2 - 20q - 9q + 90$

19. $17r - 34pr + 6p - 3$

20. $y^2 + 4y + 11y + 44$