

7-8 Practice

Form G

Factoring by Grouping

Find the GCF of the first two terms and the GCF of the last two terms for each polynomial.

1. $12x^3 + 3x^2 + 20x + 5$

2. $6v^3 + 42v^2 + 5v + 35$

3. $8t^3 + 36t^2 + 2t + 9$

4. $10s^3 + 35s^2 + 6s + 21$

Factor each expression.

9. $8j^3 + 4j^2 + 10j + 5$

10. $2m^3 + 8m^2 + 9m + 36$

11. $10s^3 + 25s^2 + 8s + 20$

12. $6x^3 + 9x^2 + 2x + 3$

7-8 Practice (continued)

Form G

Factoring by Grouping

13. $21x^3 + 6x^2 - 28x - 8$

14. $8w^3 + 12w^2 + 10w + 15$

Factor completely.

23. $32x^3 + 8x^2 + 48x + 12$

24. $45w^4 - 36w^3 + 15w^2 - 12w$

25. $32k^4 - 16k^3 + 12k^2 - 6k$

26. $6g^3 + 18g^2 + 60g + 180$