

Factor by Grouping.

1) $21x^3 + 7x^2 + 24x + 8$

2) $12v^3 - 15v^2 - 8v + 10$

3) $3a^3 + a^2 - 21a - 7$

4) $6n^3 - 9n^2 - 8n + 12$

5) $15bz + 10bc - 6xz - 4xc$

6) $28bh - 49bk - 20xh + 35xk$

Factor each completely.

7) $n^2 - 8n + 16$

8) $5n^2 - 70n + 245$

9) $3p^2 + 12p + 12$

10) $3a^2 + 15a - 18$

11) $u^2 - 11uv + 18v^2$

12) $x^2 + 4xy + 3y^2$

13) $4u^2 - 28uv - 120v^2$

14) $5a^2 + 5ab - 30b^2$

Solve each system by substitution.

15) $7x + 2y = 1$
 $y = -5x + 2$

16) $y = -5x - 11$
 $3x - y = -13$

Solve each system by elimination.

17) $-8x + 4y = 24$
 $4x - 9y = -26$

18) $3x - 3y = -18$
 $5x - 2y = -3$