

Factoring Binomials with Complex Factors (ALG.CN.11)

Factor each expression completely.

1. $x^2 + 16$

2. $m^2 - 36$

3. $4n^2 + 196$

4. $5p^2 - 45$

5. $32k^2 + 27$

6. $c^2 + 50$

7. $j^4 - 81$

8. $3y^5 - 48y$

Use the sum/difference of squares formulas to find each product.

9. $(2x - 7)(2x + 7)$

10. $(3n - 11i)(3n + 11i)$

11. $(2\sqrt{7}m + \sqrt{5}i)(2\sqrt{7}m - \sqrt{5}i)$

12. $-2(x - 5)(x + 5)(x - 5i)(x + 5i)$