

Factorization of Polynomials - Practice Worksheet

Name: _____ Date: _____

Instructions: Factor each polynomial completely. Show your work. Check your answers using the Answer Key on the reverse side.

1. Factor: $6x^2 + 9x$

.....

2. Factor: $x^2 - 16$

.....

3. Factor: $x^2 + 7x + 12$

.....

4. Factor: $x^2 - 5x + 6$

.....

5. Factor: $2x^2 + 7x + 3$

.....

6. Factor: $3x^2 - 12$

.....

7. Factor: $x^3 + 3x^2 + 2x + 6$

.....

8. Factor: $4x^2 - 12x + 9$

.....

9. Factor: $6x^2 - x - 12$

.....

10. Factor: $x^4 - 81$

.....

Answer Key

1. $3x(2x + 3)$

2. $(x + 4)(x - 4)$

3. $(x + 3)(x + 4)$

4. $(x - 2)(x - 3)$

5. $(2x + 1)(x + 3)$

6. $3(x + 2)(x - 2)$

7. $(x^2 + 2)(x + 3)$

8. $(2x - 3)^2$

9. $(2x - 3)(3x + 4)$

10. $(x^2 + 9)(x + 3)(x - 3)$