

## 5.1.APK ~ FACTORING POLYNOMIALS

Factor each polynomial completely. Remember to look for common factors first.

### Factoring Binomials

1.  $9x^2 - 25$
2.  $2x^3 - 16$
3.  $49 - x^4$
4.  $125x^3 + 27$
5.  $x^4 - 64x$

### Factoring Quadratic Trinomials

11.  $-x^3 + x^2 + 72x$
12.  $3x^3 - 8x^2 + 5x$
13.  $10x^3 + 3x^2 - x$
14.  $12x^2 - 17x + 6$
15.  $x^5 + 9x^4 - 22x^3$

### Factoring 4-Term Polynomials

6.  $x^3 + 2x^2 + 7x + 14$
7.  $4x^3 - 6x^2 + 10x - 15$
8.  $7x^3 - 7x^2 - 4x + 4$
9.  $6x^3 + 8x^2 - 9x + 12$
10.  $-x^3 + 5x^2 - 10x + 50$

### Factoring Quadratic Form

16.  $x^4 + 5x^2 - 24$
17.  $x^4 - 14x^2 + 24$
18.  $2x^4 - x^2 - 10$
19.  $3x^4 - 8x^2 - 3$
20.  $4x^4 + 15x^2 - 4$