

**FACTORING POLYNOMIALS WORKSHEET**

Factor fully.

**1.**  $x^2 - 9x$

**2.**  $8m^3 + 4m$

**3.**  $x^2 - 36$

**4.**  $36 - x^2$

**5.**  $16x^2 - 81$

**6.**  $16x^4 - 81$

**7.**  $4x^2 - 64m^2$

**8.**  $7x^2 - 7y^2$

**9.**  $m^4 - 25$

**10.**  $a^4 - 1$

**11.**  $27m^5 - 75m$

**12.**  $2x^2 - 98y^2$

**13.**  $4x^2 + 4x + 1$

**14.**  $9x^2 - 18xy + 9y^2$

**15.**  $9x^2 + 24x + 16$

**16.**  $x^4 + 81 + 18x^2$

**17.**  $16x^4 - 40x^2 + 25$

**18.**  $2x^2 - 10x + mx - 5m$

**19.**  $x^3 - 2x^2 - 4x + 8$

**20.**  $x^3 - 4x^2y + 4xy^2$

**21.**  $3x^3 + 6x^2 + x + 2$

**22.**  $6x^2 + 21x + 9$

**23.**  $x^4 - 4x^2 + 3$

**24.**  $x^4 - 4x^2 - 32$

**25.**  $7x^2 + 28x + 21$

**26.**  $8x^3 - 48x^2 + 72x$

**27.**  $3x^2 + 3x - 6$

**28.**  $3x^2 - 11x - 20$

**29.**  $2x^2 - 5x + 2$

**30.**  $x^2 + 10xy - 75y^2$

**31.**  $6x^2 + 2x - 2$

**32.**  $8x^2 + 10x - 3$

**33.**  $10x^2 + 21x - 10$

**34.**  $10x^2 - 17x - 6$

**35.**  $12x^4 + 10x^3 - 8x^2$

**36.**  $15 - 2x - x^2$