

REVIEW ANSWERS

2. a. $(3x^{2m} + 10)(3x^{2m} - 2)$
 b. $(x^{n-1} - 2)(x^{n-1} + 5)$
 c. $(2x^{a+1} + 3y^a)(x^{a+1} + y^a)$
 d. $(5x - 3 + 2a - b)(5x - 3 - 2a + b)$
 e. $(x^{2n} + y^{3n+1})(x^{2n} - y^{3n+1})$
 f. $(2x^{2a} + y^{b+3})(4x^{4a} - 2x^{2a}y^{b+3} + y^{2b+6})$
 g. $a(a - b^2)(a - b)$
 h. $4(c + d)(c - d)(c + 2d)$
 i. $3(2x^n - 5y^{2m})(4x^{2n} + 10x^n y^{2m} + 25y^{4m})$
3. a. $p^2 + 5p - 7 + 8/(2p - 3)$
 b. $x^2 - x + 5/4 + (15/4)/(4x + 5)$
 c. Yes. No remainder
4. a. $2x^2 - 8x + 1 + 5/(3x - 2)$
 b. $a^3 - 6a^2 - 7a + 60$
5. a. $f(3) = -46, f(-2) = -31$ b. $f(3) = 314, f(-2) = 79$
6. a. $(x - 1)(x + 3)(2x - 1)$ b. $(x - 3)(x - 3)(2x + 1)$

- R3.** a. $9x^2 - 49y^2$
 b. $x^3 - 2x^2 - 13x + 6$
 c. $r^2 - 8rt + 16t^2$
 d. $3x(2a + 5b)$
 e. $9(2r + 3s)(2r - 3s)$
 f. $(2x + 3y)(x - 12y)$
- R4.** a. $(x - 2y)(x^2 + 2xy + 4y^2)$
 b. $(3x + 8)(4x + 1)$
 c. discriminant = -128 , not a perfect square
 d. $(-1 + p)(7 - p)$
 e. $(x + 3)(x - 3)(x + 1)(x - 1)$
- R5.** $x^2 + 3x - 7 - \frac{4}{x - 2}$