

BLM 3-4 Section 3.2 Extra Practice

1. a) $\frac{x^2 - x - 15}{x - 4} = (x + 3) - \frac{3}{x - 4}$ b) $x \neq 4$

c) $x^2 - x - 15 = (x - 4)(x + 3) - 3$

d) To check, multiply the divisor by the quotient and add the remainder.

2. a)

$$\frac{x^4 - 3x^3 + 2x^2 + 55x - 11}{x + 3} = (x^3 - 6x^2 + 20x - 5) + \frac{4}{x + 3}$$

b) $x \neq -3$ c) To check, multiply the divisor by the quotient and add the remainder.

3. a) $3x + 1$ b) $2x^2 - 20x + 85$ c) $2w^3 - 3w^2 + 4w - 10$

4. a) 233 b) -7 c) 36

5. a) $4w^3 - 5w^2 + 3w - 4$ b) $x^3 + 4x^2 - 5$

c) $5y^3 - 5y^2 + 7y - 8$

6. a) 0 b) 179 c) -19

7. a) -25 b) -44 c) -65

8. a) -22 b) 0 c) 831

9. 2

10. 4 and -2