# 2.3 Answers

(7) $x^2 - 3x + 1$; $x \neq -5/4$

(13)

$$2x^2+0x+1 \;\overline{)\; 6x^3+10x^2+x+8}$$

$3x+5$

$-6x^3 + 0x^2 + 3x$

$10x^2 - 2x + 8$

$10x^2 + 0x + 5$

$-2x + 3$

$2x^2+1 \neq 0$ No restrictions

$$3x+5+\frac{-2x+3}{2x^2+1}$$

(19) 5]

| | | | |
|---|---|---|---|
| 3 | −17 | 15 | −25 |
| ↓ | 15 | −10 | 25 |
| 3 | −2 | 5 | 0 |

$3x^2 - 2x + 5$; $x \neq 5$

(25) 4]

| | | | |
|---|---|---|---|
| 5 | −6 | 0 | 8 |
| ↓ | 20 | 56 | 224 |
| 5 | 14 | 56 | 232 |

$$5x^2+14x+56+\frac{232}{x-4}; \quad x \neq 4$$

(45) a) $f(1) = 1$ b) $f(-2) = 4$

(69) $2x^2 - x - 1$ ; $x \neq 3/2$

(84) $(5)^3 + 4(5)^2 - 3(5) + C = 0$

$125 + 100 - 15 + C = 0$

$C = -210$

(or) 5| 1 4 −3 C

↓ 5 45 210

1 9 42 0

$C = -210$