

Unit 3 Review Key

PreCalculus Book p. 173

24) \updownarrow

Additional Problems

1a) 2

b) $2\sqrt{2}$

c) 6

d) $y \geq 2$

2a) $(4, -13)$

b) $(1, -6)$

c) $(4, 9)$

3a) $(a - b)(c + d)$

b) $(3x + 4)(3x - 4)$

c) $(x - 1)(x + 24)$

d) $(x + 12)(x - 12)$

e) $(3y - 2)(2y + 1)$

f) $(5t - 3)(t + 1)$

g) $(4d - 1)^2$

h) $2x(4y + 5z - 7w)$

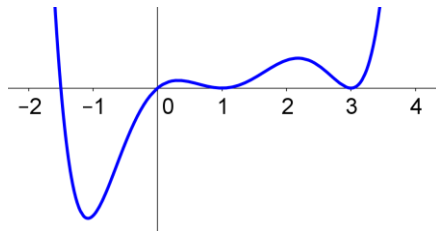
i) $3(x + 2)(x^2 - 2x + 4)$

j) $(3x - 5)(x^2 + 16)$

k) $(2x - 1)(4x^2 + 2x + 1)$

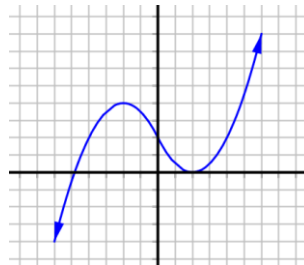
4) $y = x^3 + x^2 + 9x + 9$

5)



6) $0 \leq x \leq \frac{3}{2}, x = -5$

7a)



b)



c) Not one-to-one

8) D: \mathbb{R} R: $y \geq 4$

9) $x = \frac{-3 \pm i\sqrt{3}}{6}$

10) $x = 0, -\frac{1}{2}, 3$

11) $4 \pm \sqrt{3}i, -1$

12a) $A(x) = \left(\frac{3000-3x}{2}\right)x$

b) 375,000 ft^2

c) 500 $ft.$ by 750 $ft.$

13) $x \leq -1.359$

$-0.894 \leq x \leq 0.856$

$x \geq 1.397$

14) $1792x^5y^3$