Answers 11.1.1

11-1 $\sqrt{x}$ starts @ (0,0) no shifts, parent function

$\sqrt{x}+1$ shift 1 up

$\sqrt{x+2}-1$ shifts 2 left down 1

$\sqrt{x-1}+3$ shift rt. 1 and up 3

$-\sqrt{x}$ flips over x-axis (points down)

$-\sqrt{x}-2$ flips over x-axis/down
shifts down 2

11-4 $(3x-2)^2 = 9x^2-12x+4$

11-5 a) 228 b) 58 c) 3 pm

11-6 a) .75 b) 99 c) 2 d) π

11-7 vertex (1, #) due to symmetry

11-8 a = \$15.50 c = \$8.50

11-9 a) $m = -2/7$, $b = 2$ b) $m = -1/3$, $b = 6$ c) $m = 5$, $b = -1$ d) $m = 3$, $b = 0$

Use different colors to graph the following rules:

$y = x$

$y = x + 2$

$y = (x - 3)$

$y = (x - 3) + 2$

Key

$y = x^2$

$y = x^2 + 2$

$y = (x-3)^2$

$y = (x-3)^2 + 2 \longleftrightarrow y - 2 = (x-3)^2$

$y = \sqrt{x}$

$y = \sqrt{x} + 2$

$y = \sqrt{x-3}$

$y = \sqrt{x-3} + 2$

$y = |x|$

$y = |x| + 2$

$y = |x-3|$

$y = |x-3| + 2$