Definition 1. *Let the function S be defined as $S(t) = -\sqrt{t+6} + 2$ with a domain of $[-6, \infty)$.*

Exercise 1 *The least value attained by S is 2.*

Multiple Choice:

(a) *True*

(b) *False* ✓

Exercise 2 *The greatest value attained by S is 2.*

Multiple Choice:

(a) *True* ✓

(b) *False*

Exercise 3 *Is S is an increasing function, decreasing function, or neither?*

Multiple Choice:

(a) *Increasing*

(b) *Decreasing* ✓

(c) *Neither*

Definition 2. *Let N be some real number. Let M be some real number. Let the function H be defined as $H(t) = M + \sqrt{t+N}$ with a domain of $[-N, \infty)$.*

Exercise 4 *The least value attained by H is M.*

Multiple Choice:

(a) *True* ✓

(b) *False*

Exercise 5 *The greatest value attained by H is M.*

Multiple Choice:

(a) *True*

(b) *False* ✓

Exercise 6 *The range of H is which interval?*

Multiple Choice:

(a) (M, ∞)

(b) $[M, \infty)$ ✓

(c) $(-\infty, -M]$

(d) $(-\infty, M]$

Exercise 7 *H is an increasing function.*

Multiple Choice:

(a) *True* ✓

(b) *False*