**1.1.2 HW Solutions**

* **1-15. See below:**
	1. 
	2. 42 tiles.  Add 4 tiles to get the next figure
* **1-16. See below:**
	1. *x* = 0
	2. *x* = all real numbers
	3. *x* = 14
	4. no solution
* **1-17. See below:**
	1. 
	2. 
	3. 
	4. 
* **1-18. See below:**
	1. $18
	2. Yes, it is proportional because 0 gallons cost $0.  Doubling (or tripling) the gallons of gas would double (or triple) the cost.
	3. 8.4 gallons
	4. Typical response: The line would get steeper.
* **1-19. See below:**
	1. −17
	2. 8
	3. 8
	4. 486
* **1-21. See below:**
	1. 5
	2. 19
	3. −76
* **1-22. See below:**
	1. The negative number indicates the elevation is below sea level.
	2. The elevation decreases, that is, becomes more negative.
	3. –2700 m; 675 m; 0 m
	4. See graph at right.
	5. Yes, the table and resulting graph go through (0, 0) and doubling (or

tripling) the time doubles (or triples) the elevation. This is a decreasing

proportional relationship.

* **1-23. See below:**
	1. *x*= –3
	2. *x*= 5
	3. *x* = 
* **1-24. See below:**
	1. 84 and no real solution.
	2. He cannot get an output of 0 y = x2 + 3. He can get an output of 0 by using an input of 4 in
	y = –2.