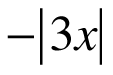
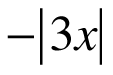
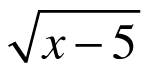
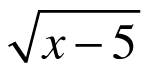
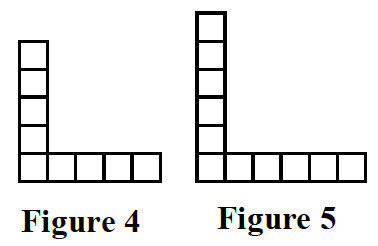
**Lesson 1.1.1**

* **1-2.** Not a good suggestion. Any input *x* ≤ −20 will *not* give the negative output the customer requested.
* **1-3. See below:**
  1. The output from the first machine is −2; the output from the second machine is 4.
  2. Not possible.  The output of the second machine is always positive regardless of the input.
* **1-4. See below:**
  1. (*x* − 2)2could not be last, because the output is negative, and squaring a number makes it positive.  ***https://ebooks.cpm.org/images/shared/1-x.gif****could* be last, but is *probably* not last because the output is not a fraction.
  2. Since the input is 0, ***https://ebooks.cpm.org/images/shared/1-x.gif*** could not be first because it would require dividing by 0**.**
  3. The correct order is (*x* − 2)2, ***https://ebooks.cpm.org/images/shared/1-x.gif***, 4*x* − 32.
  4. The correct order is ***https://ebooks.cpm.org/images/shared/1-x.gif***, 4*x* − 32, (*x* − 2)2.
* **1-5. See below:**
  1. The correct order is −2*x* + 34, (*x* − 2)2, **,  − 10.
  2. The correct order is **,  − 10, (*x* − 2)2, −2*x* + 34.
* 
* **1-6. See below:**
  1. *y* = *x*2 − 6 and then *y* = .
  2. Yes, reverse the order of the machines (*y* =  and then *y* = *x*2 − 6) and use an input of *x* = 6.
* **1-7. See below:**
  1. 54
  2. −7***https://ebooks.cpm.org/images/shared/3-5.gif***
  3. 2
  4. 2.93
* **1-8. See below:**
  1. 
  2. It grows by adding two tiles each time.
  3. 1;  The top and right tiles are removed, since the pattern is to add two tiles to expand each figure.
* **1-9. See below:**
  1. −59
  2. 17
  3. −72
  4. 6
  5. −24
  6. −25
  7. 25
  8. −25
  9. 7
* **1-10. See below:**
  1. *y* = 1
  2. *y* = 3
  3. *y* = 9