

- 1.1A** I can evaluate algebraic expressions given the value of a variable.  
Ex 1a: Evaluate the expression  $2a^2 + 3b$  when  $a = 3$  and  $b = 1$
- 1.1B** I can evaluate a power.  
Ex 1b: Evaluate  $3^4$
- 1.1C** I can use the concepts as presented in word problems.  
Ex 1c: Find the volume of a cube-shaped CD player, where each side  $s$  is 23 cm. Use the formula  
 $V = s^3$
- 1.2A** I can evaluate numerical expressions using the order of operations.  
Ex 2a: Evaluate the expression  $3 \cdot 2^2 + 5$
- 1.2B** I can appropriately insert grouping symbols to evaluate an expression.  
Ex 2b: Evaluate the expression  $2 \left[ 2^2 (2 - 1 + 3)^3 + 4 \right]$
- 1.2C** I can evaluate an algebraic expression using the order of operations.  
Ex 2c: Evaluate the expression  $\frac{72}{x^3} + 3x$  when  $x = 2$
- 1.2D** I can use the concepts as presented in word problems.  
Ex 2d: You join an online music service. The total cost in dollars of downloading 3 singles at .99 each and 2 albums at \$9.95 each is given by the expression  $3 \cdot .99 + 2 \cdot 9.95$ . Find the total cost.
- 1.3A** I can write a verbal phrase to describe a quantity.  
Ex 3a: Translate the phrase "5 more than a number"
- 1.3B** I can translate a verbal phrase to an algebraic expression  
Ex 3b: Translate the phrase "8 less than the quantity 5 times a number  $n$ "
- 1.3C** I can find a unit rate.  
Ex 3c: Find the unit rate of  $\frac{8 \text{ runs}}{6 \text{ innings}}$
- 1.3D** I can use the concepts as presented in word problems.  
Ex 3d: The student council is holding a craft show as a fundraiser. Each exhibitor is charged \$40 for a table and the admission price is \$3.50 per person. Write an expression for the amount raised. There are 38 exhibitors and 420 people attend the craft show. Find the amount raised.
- 1.4A** I can translate a verbal model into an equation and solve.  
Ex 4a: Translate the equation "the sum of three times a number and 2 is nine".
- 1.4B** I can determine if a given value is a solution to an equation or inequality.  
Ex 4b: Is the given value a solution?  $5(x^3 - 4) \leq 22$  when  $x = 2$
- 1.4C** I can use mental math to solve a problem.  
Ex 4c: Solve the equation using mental math:  $a + 3 = 10$

**1.4D** I can use the concepts as presented in word problems.

Ex 4d: It costs \$380 to attend a leadership conference. The school will contribute \$75. You can save \$35 per week. Use the inequality  $35w + 75 \geq 380$  to model the situation. What does  $w$  represent? How many weeks will it take to save enough money?

**1.5A** I can create a verbal model, translate to an algebraic equation and solve it.

Ex 5a: Write an algebraic model and solve it to find how many soft drinks you bought last week at \$.60 each if you spent \$5.40.

**1.5B** I can use the concepts as presented in word problems.

Ex 5b: The temperature is  $72^\circ F$ . What is the temperature in degrees Celsius? Use

$$C = \frac{5}{9}(F - 32).$$

**1.6A** I can determine if a table represents a function.

Ex 6a: Tell whether the pairing is a function.

Input	Output
1	1
3	1
4	3
6	4

**1.6B** I can identify the domain and range of a function (given a table).

Ex 6b: Identify the domain and range of the function.

Input	Output
1	3
2	7
3	11
4	15

**1.6C** I can identify the dependent and independent variables of a function.

Ex 6c: In the equation  $h = t + 3$ , which variables are the independent and dependent variables?

**1.6D** I can make a table given the equation of a function.

Ex 6d: Make a table for the equation  $y = 3x - 1$  given domain: 1, 2, 3, 4, 5

**1.6E** I can write a rule for a function (given a table).

Ex 6e: Write a rule for the function.

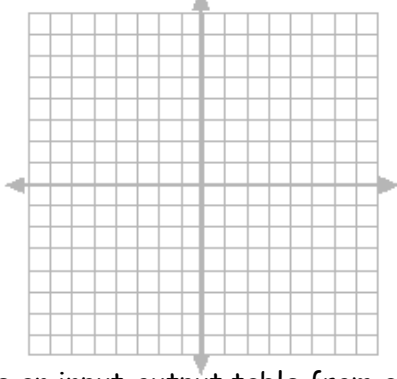
Input	Output
0	5
1	7
2	9
3	11

**1.6F** I can use the concepts as presented in word problems.

Ex 6f: You have \$200 and plan to save \$50 each month. Write a rule for the amount saved as a function of the number of months from now. Identify the independent and dependent variables, the domain and the range. How much will you have saved altogether in 12 months from now?

**1.7A** I can graph a function given the equation and the domain.

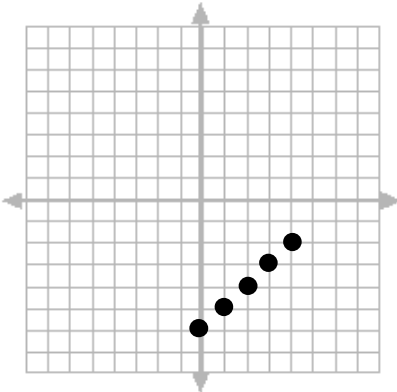
Ex 7a: Graph the function  $y = 3x - 2$  given domain  $-2, -1, 0, 1, 2$



Input	Output
-2	
-1	
0	
1	
2	

**1.7B** I can create an input-output table from a graph.

Ex 7b:



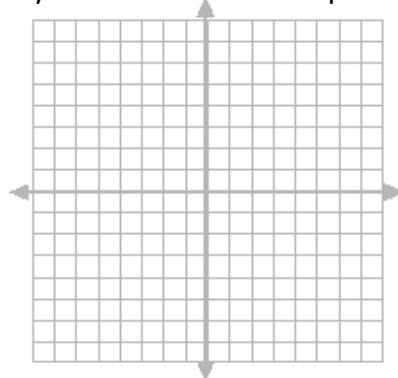
Input	Output

**1.7C** I can identify equivalent representations of a function: verbal rule, equation, table, and/or graph.

Ex 7c: Create a rule for the graph in 1.7B.

**1.7D** I can use the concepts as presented in word problems

Ex 7d: The table shows the cost  $C$  in millions of a 30 second Super Bowl ad on TV as a function of time  $t$  in years since 1997. Graph the function.



Year since 1997	Cost in millions
0	1.2
1	1.3
2	1.6
3	2.1
4	2.1