Chapter 1 Review

1.1 Evaluate Expressions

- Input values and simplify
- Exponents -5^2 vs $(-5)^2$

1.2 Order of Operations

- PEMDAS- Go left to right when MD or AS
- Evaluate- Plug in and then simplify using PEMDAS

1.3 Writing Expressions

- Translate a verbal phrase into an expression
- Write an expression given a situation
- Find unit rate

1.4 Write Equations and Inequalities

- Translate a verbal phrase into an equation
- Translate a verbal phrase into an inequality
- Check if a value is a solution to an equation or inequality

1.6 Represent Functions as Rules and Tables

- Identify domain and range of a function
- Tell whether the pairing is a function
- Make a table given a rule and domain
- Write a rule given a table

1.7 Represent Functions as Graphs

- Graph a function given a rule and domain
- Create a table and write a rule given a graph

1.1 Evaluating Expressions

Simplify.

1) -6^2

2) $(-4)^2$

Input the value and simplify

3) $x^2 \; when \; x = -7$

4) $-x^2 \;\; when \; x = 8$

1.2 Order of Operations and Evaluating Expressions

Input the values and simplify using order of operations

5) $11(6-x)^2-10 \; when \; x=3$

6) $\frac{(x+5)-2}{2(8-y)^3} \; when \; x=3 \; and \; y=6$

1.3 Writing Expressions

Translate the verbal phrase into an expression

7) 7 less than a number

8) The quotient of a number and 3

9) 5 times the sum of 9 and x

10) 7 more than the product of 8 and a number

11) The difference of 4 and a number

Write an expression for the situation

12) The number of months in *y* years

13) The amount of *m* money you get if 4 people share it.

14) The number of games you can play if you have *d* dollars if each game costs $0.75

Find the unit rate

15) $36.75 for 5 books

16) 445 yards in 4 games.

1.4 Writing Equations and Inequalities

Write an equation or inequality for each phrase below.

17) The sum of a number and 8 is at most 12.

18) The product of 2 and *w* is 12.

19) 3 times the sum of 7 and a number is no less than 15.

Check whether the given number is a solution of the equation or inequality.

20) $3x + 7 > 20 \; for \; x = 4$

21) $2p - 1 \leq 7 \;\; for \; p = 3$

1.6 Represent Functions as Rules and Tables

Identify the domain and range of the function.

22)

Input	2	4	6	8	10
Output	3	6	9	12	15

Tell whether the pairing is a function.

23)

x	2	3	2	5
y	8	6	4	2

24)

x	4	5	6	7
y	3	3	5	9

Make a table for the function $y = 2x + 3$ with a domain of 0,1,2,3. Then identify the range.

25)

input				
output				

Write a rule for the function.

26)

x	2	4	6	8	10
y	0	4	8	12	16

27)

x	0	2	4	6
y	1	2	3	4

28) A gym charges $120 to join and $40 a month.

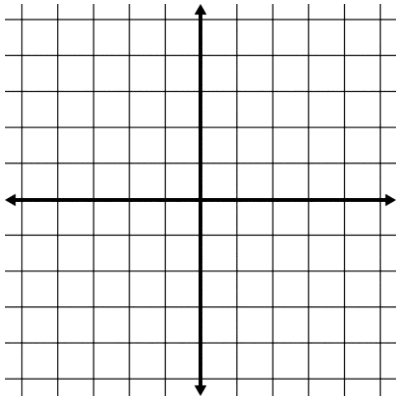
Write a rule for the situation and identify the dependent and independent variables.

Rule: Dependent Variable: Independent Variable:

1.7 Represent Functions as Graphs

Graph the function.

29) $y = 3x - 2$ domain: 0,1,2,3,4



Write a rule for the function represented by the graph. Identify the domain and range of the function.

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