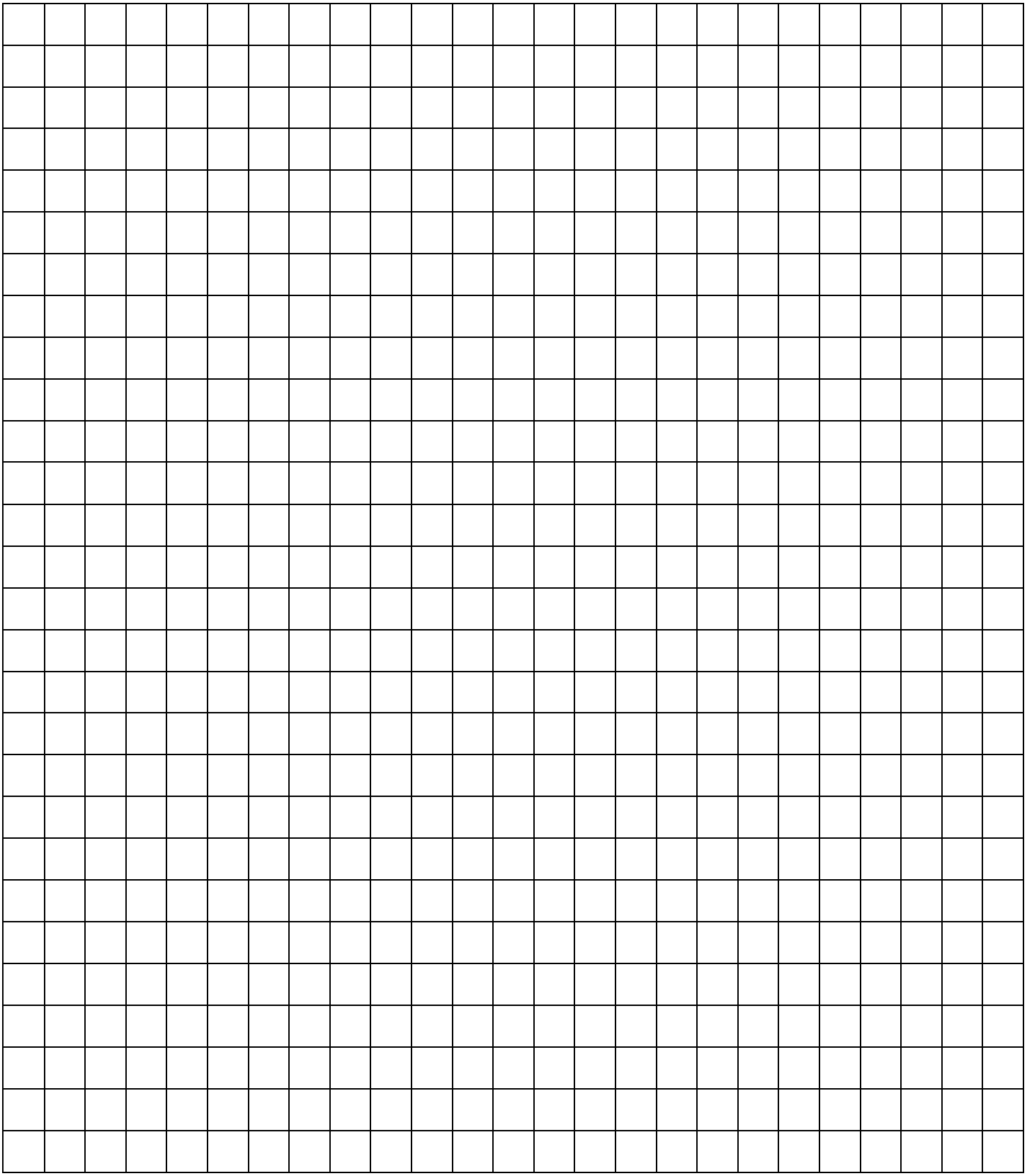
Unit 8, Activities 1 and 12, Graph Paper



Name _____ Date _____

Evaluate each expression.

1. $(\frac{1}{3})^3$

2. x^4, if $x = 2$

3. 5^2

4. 8.2^1

5. $(\frac{1}{2})^6$

6. 12^0

7. 3^7

8. 2.1^2

9. $(\frac{1}{4})^4$

10. x^2, if $x = 3.5$

Unit 8, Activity 2, Exponents with Answers

Name _____ Date _____

Evaluate each expression.

1. $(\frac{1}{3})^3$ $\frac{1}{27}$

2. x^4, if $x = 2$ *16*

3. 5^2 *25*

4. 8.2^1 *8.2*

5. $(\frac{1}{2})^6$ $\frac{1}{64}$

6. 12^0 *1*

7. 3^7 *2187*

8. 2.1^2 *4.41*

9. $(\frac{1}{4})^4$ $\frac{1}{256}$

10. x^2, if $x = 3.5$ *12.25*

Name _____ Date _____

Match the verbal statements to the appropriate expression.

1.	The pizza is shared by 3 people.	a.	$3.25x$
2.	5 more apples than you have	b.	$x - 3$
3.	You gave away 3 CDs.	c.	$x + 5$
4.	$5 per ticket	d.	$30\ x$
5.	The length of a football field is 30 yards more than its width.	e.	$x - 3.25$
6.	Gas is $3.25 per gallon.	f.	$x + 30$
7.	She averaged 30 miles per hour.	g.	$\frac{x}{3}$
8.	Sue cut 3.25” off the length of her hair.	h.	$5\ x$

Unit 8, Activity 3, Match It with Answers

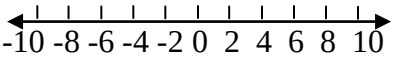
Name _____ Date _____

Match the verbal statements to the appropriate expression.

1.	The pizza is shared by 3 people.	a.	$3.25x$
2.	5 more apples than you have	b.	$x - 3$
3.	You gave away 3 CDs.	c.	$x + 5$
4.	$5 per ticket	d.	$30\ x$
5.	The length of a football field is 30 yards more than its width.	e.	$x - 3.25$
6.	Gas is $3.25 per gallon.	f.	$x + 30$
7.	She averaged 30 miles per hour.	g.	$\frac{x}{3}$
8.	Sue cut 3.25” off the length of her hair.	h.	$5\ x$

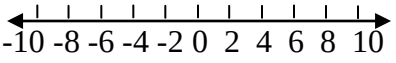
EQUAL

$x = 5$



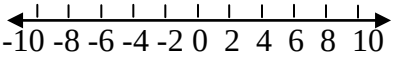
LESS THAN

$x < 10$



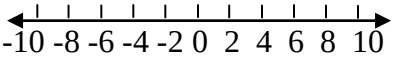
GREATER THAN

$x > -5$



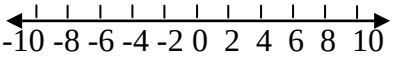
LESS THAN OR EQUAL TO

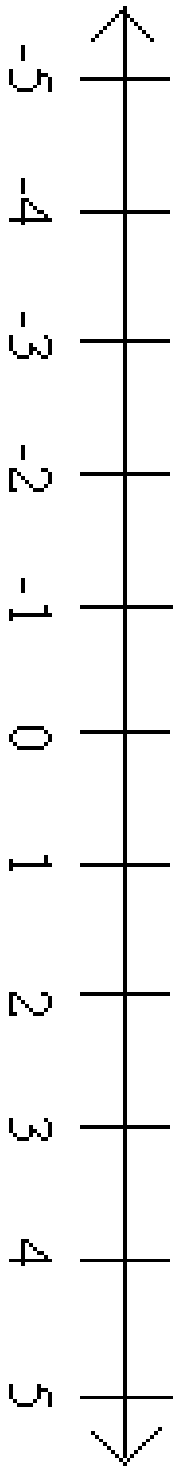
$x \leq 7$



GREATER THAN OR EQUAL TO

$x \geq 7$



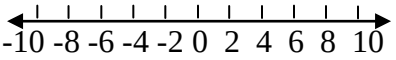

5
4
3
2
1
0
1
2
3
4
5

Unit 8, Activity 6, Graph It

Name _____ Date _____

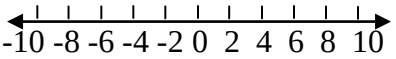
1.

$x = 3$



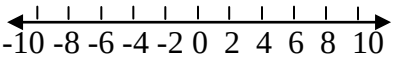
2.

$x < 7$



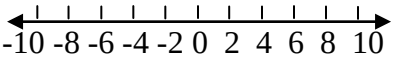
3.

$x > -6$



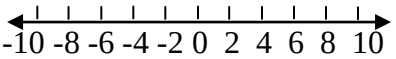
4.

$x \leq 8$



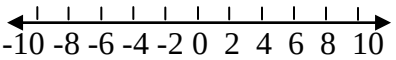
5.

$x > -4$



6.

$x \leq 5$

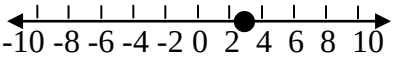


Unit 8, Activity 6, Graph It with Answers

Name _____ Date _____

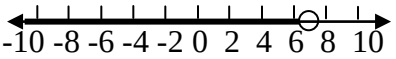
1.

$x = 3$



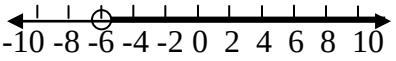
2.

$x < 7$



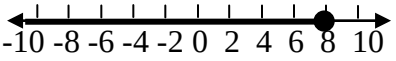
3.

$x > -6$



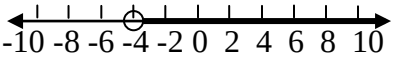
4.

$x \leq 8$



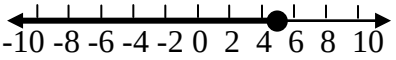
5.

$x > -4$



6.

$x \leq 5$



Unit 8, Activity 6, Equation/Inequality Word Grid

Name _____ Date _____

Situation	Equation	Inequality	Write the equation or inequality to represent each situation
John bought cheeseburgers for 5 of his friends. The total was $15.			
The movie theater has more than 285 seats.			
The Jackson family spent less than $200.00 on groceries last month.			
Sam must be at least 5 ft. to go on the ride.			
I have at most $100 in my pocket.			
The store has socks on sale. They are 6 pairs for $12.			

Seven less than a number "x"	**$x - 7$**	**Seven increased by a number "x"**	**$7 + x$**
Six less than a number "x"	**$x - 6$**	**A number "x" less than 6**	**$6 - x$**
four decreased by a number "x"	**$4 - x$**	**Four times a number "x" divided by 3**	**$\frac{4x}{3}$**
2 raised to a power of "x"	**2^x**	**A number "x" increased by 12**	**$x + 12$**

Half of a number "x"	**$\frac{x}{2}$**	**Twice a number "x" minus 4**	**2x – 4**
Four decreased by twice a number "x"	**4 – 2x**	**Six more than three times a number "x"**	**3x + 6**
72 divided by a number "x"	**$\frac{72}{x}$**	**A number "x" divided by 72**	**$\frac{x}{72}$**
Triple a number "x"	**3x**	**Three times a number "x" decreased by 4**	**3x – 4**

Word Phrase	**Algebraic Expression**	**1st Replacement Value**	**Solution**	**2nd Replacement Value**	**Solution**	**3rd Replacement Value**	**Solution**

Unit 8, Activity 8, Evaluate It!

Name _____ Name _____

Date _____ Date _____

Problem 1: $x + 5$ Number Rolled: _____ Work it out:	Problem 1: $x + 3$ Number Rolled: _____ Work it out:
Problem 2: $\frac{1}{2}y$ Number Rolled: _____ Work it out:	Problem 2: $\frac{1}{4}x$ Number Rolled: _____ Work it out:
Problem 3: $3n$ Number Rolled: _____ Work it out:	Problem 3: $5n$ Number Rolled: _____ Work it out:
Problem 4: $0.5z$ Number Rolled: _____ Work it out:	Problem 4: $1.4x$ Number Rolled: _____ Work it out:
Problem 5: $12x$ Number Rolled: _____ Work it out:	Problem 5: $11x$ Number Rolled: _____ Work it out:

Name _____ Date _____

Match the verbal statements to the appropriate equation.

1.	A number increased by seven is twenty-two.	a.	$n - 8 = 12$
2.	Twice a number is eight.	b.	$n - 7 = 22$
3.	A number decreased by four is twelve.	c.	$n + 7 = 22$
4.	Twelve is the difference between a number and eight.	d.	$4n = 12$
5.	Seven less than a number is twenty-two.	e.	$2n = 8$
6.	A number squared is thirty-six.	f.	$2n = 12$
7.	The product of a number and two is twelve.	g.	$n - 4 = 12$
8.	A number times four is twelve.	h.	$n^2 = 36$

Name _____ Date _____

Match the verbal statements to the appropriate equation.

1.	A number increased by seven is twenty-two.	a.	$n - 8 = 12$ $n = 20$
2.	Twice a number is eight.	b.	$n - 7 = 22$ $n = 29$
3.	A number decreased by four is twelve.	c.	$n + 7 = 22$ $n = 15$
4.	Twelve is the difference between a number and eight.	d.	$4n = 12$ $n = 3$
5.	Seven less than a number is twenty-two.	e.	$2n = 8$ $n = 4$
6.	A number squared is thirty-six.	f.	$2n = 12$ $n = 6$
7.	The product of a number and two is twelve.	g.	$n - 4 = 12$ $n = 16$
8.	A number times four is twelve.	h.	$n^2 = 36$ $n = 6$

Name _____ Date _____

1. Jack had $12 to spend on four pens. How much did each pen cost?

   Equation:

   Solution:

2. You bought a book for $15, a bookmark for $3 and coffee. You spent a total of $25. How much did the coffee cost?

   Equation:

   Solution:

3. Jenny sold half of her comic books. She now has 35. How many did she start with?

   Equation:

   Solution:

4. If Randy subtracts 25 from his number, he gets 4. What is Randy's number?

   Equation:

   Solution:

5. Liz saved her weekly allowance for 4 weeks. At the end of that time, she had $60.00. How much is Liz's weekly allowance?

   Equation:

   Solution:

Unit 8, Activity 9, Solving Equations with Answers

Name _____ Date _____

1. Jack had $12 to spend on four pens. How much did each pen cost?

   Equation: $4p = 12$

   Solution: *p = 3; Each pen cost $3.*

2. You bought a book for $15, a bookmark for $3 and coffee. You spent a total of $25. How much did the coffee cost?

   Equation: $15 + 3 + b = 25$

   Solution: *b = 7; The coffee cost $7.*

3. Jenny sold half of her comic books. She now has 35. How many did she start with?

   Equation: $b \div 2 = 35$

   Solution: *b = 70; Jenny started with 70 comic books.*

4. If Randy subtracts 25 from his number, he gets 4. What is Randy's number?

   Equation: $n - 25 = 4$

   Solution: *n = 29; Randy's number is 29.*

5. Liz saved her weekly allowance for 4 weeks. At the end of that time, she had $60.00. How much is Liz's weekly allowance?

   Equation: $4w = 60$

   Solution: *w = 15; Liz's weekly allowance is $15.*

Name _____ Date _____

1. The Bike Shop rents bikes for $7 per hour plus a $10 flat fee. Julia paid $24 to rent a bike. For how many hours did she rent the bike?

   Equation:

   Solution:

2. You bought a king cake for $10 and five doughnuts. You spent a total of $25. How much did each doughnut cost?

   Equation:

   Solution:

3. Jerome sold half of his baseball cards and then bought fifteen more. He now has 35. How many did he start with?

   Equation:

   Solution:

4. If Johnny subtracts 5 from 3 times his number, he gets 4. What is Johnny's number?

   Equation:

   Solution:

5. Grace had $10.00 in her piggy bank. Then she saved her weekly allowance for 4 weeks. At the end of that time, she had $30.00. How much is Grace's allowance?

   Equation:

   Solution:

Unit 8, Activity 10, Two-Step Equations with Answers

Name _____ Date _____

1. The Bike Shop rents bikes for $7 per hour plus a $10 flat fee. Julia paid $24 to rent a bike. For how many hours did she rent the bike?

   Equation: *7h + 10 = 24*

   Solution: h = *2; Julia rented the bike for 2 hours.*

2. You bought a king cake for $10 and five doughnuts. You spent a total of $25. How much did each doughnut cost?

   Equation: *10 + 5d = 25*

   Solution: *d = 3; Each doughnut costs $3.00.*

3. Jerome sold half of his baseball cards and then bought fifteen more. He now has 35. How many did he start with?

   Equation: *b ÷ 2 + 15 = 35*

   Solution: *b = 40; Jerome started with 40 baseball cards.*

4. If Johnny subtracts 5 from 3 times his number, he gets 4. What is Johnny's number?

   Equation: $3n - 5 = 4$

   Solution: *n = 3; Johnny's number is 3.*

5. Grace had $10.00 in her piggy bank. Then she saved her weekly allowance for 4 weeks. At the end of that time, she had $30.00. How much is Grace's allowance?

   Equation: *10 + 4w = 30*

   Solution: *w = 5; Grace's allowance is $5 a week.*

Unit 8, Activity 12, Input-Output Tables

Name _____ Date_____

Complete the input/output tables below with the values 1 – 10. Plot your values on the graph paper.

1. $5x = y$

Input x	1	2	3	4	5	6	7	8	9	10
Output										

Show your work in the space below.

2. $x^2 = y$

Input x	1	2	3	4	5	6	7	8	9	10
Output										

Show your work in the space below.

3. $2x + 8 = y$

Input x	1	2	3	4	5	6	7	8	9	10
Output										

Show your work in the space below.

Unit 8, Activity 12, Input-Output Tables with Answers

Name _____ Date_____

Complete the input/output tables below with the values 1 – 10. Plot your values on the graph paper.

1. $5x = y$

Input x	1	2	3	4	5	6	7	8	9	10
Output	*5*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*

Show your work in the space below.

2. $x^2 = y$

Input x	1	2	3	4	5	6	7	8	9	10
Output	*1*	*4*	*9*	*16*	*25*	*36*	*49*	*64*	*81*	*100*

Show your work in the space below.

3. $2x + 8 = y$

Input x	1	2	3	4	5	6	7	8	9	10
Output	*10*	*12*	*14*	*16*	*18*	*20*	*22*	*24*	*26*	*28*

Show your work in the space below.