



Comprehensive Curriculum

Revised 2008

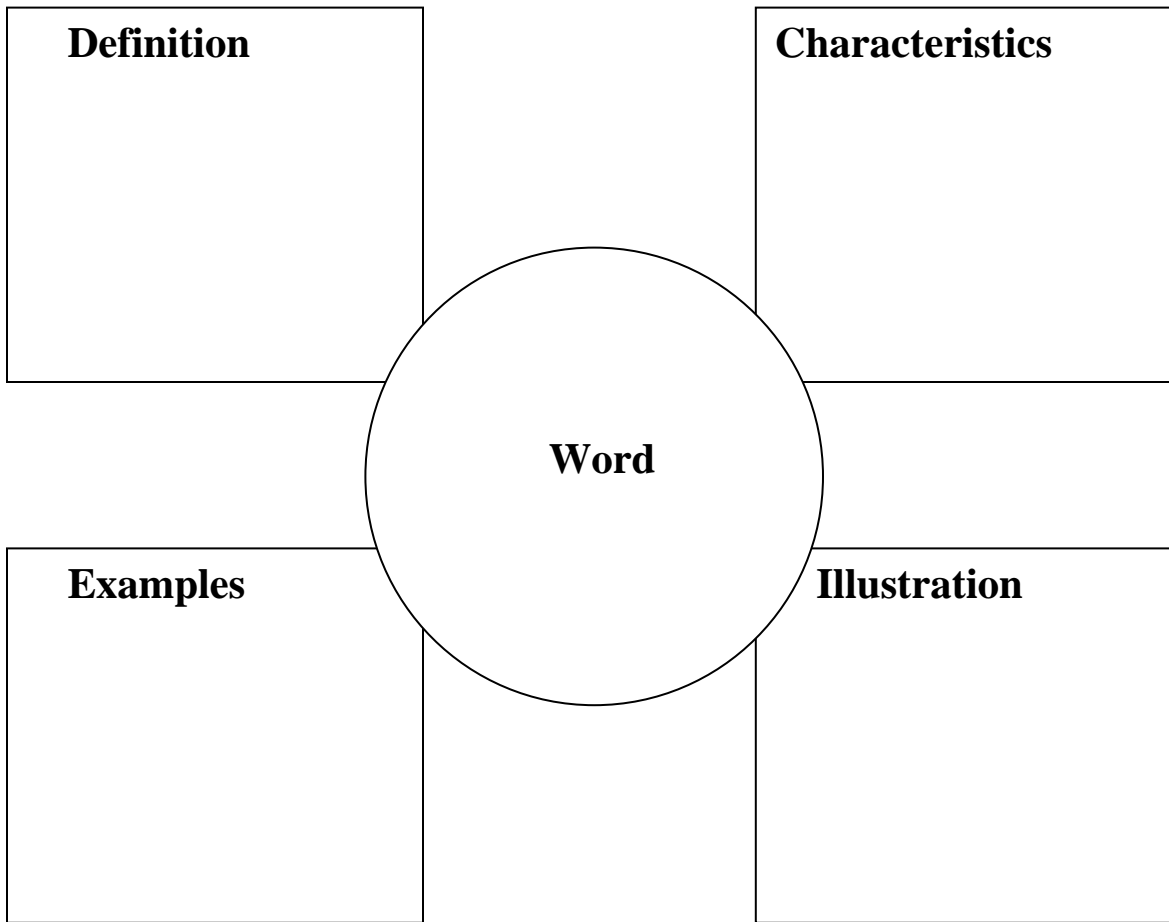
Grade 6 Mathematics



Louisiana Department of
EDUCATION

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www.farq.xyz

Unit 1, Activity 1, Vocabulary Card



Unit 1, Activity 1, Frequency Tables

Name _____

Date _____

Frequency Tables

Survey at least 20 people to find out what their favorite fruit is. Record the data in a frequency table.

Fruit	Number
Grapes	
Apples	
Watermelons	
Blueberries	
Strawberries	
Bananas	
Pears	

1. Did more people choose pears or watermelons?
2. How many fewer people chose blueberries than chose strawberries?
3. How many people did not choose bananas as their favorite fruit?

Unit 1, Activity 2, Stem-and-Leaf Graph

Name _____ Date _____

Constructing a Stem-and-Leaf Graph

Record your data on the chart below. Then write a short interpretation of the patterns seen.

Stem	Leaf

Interpretation of patterns in data _____

Unit 1, Activity 3, Mean, Median, Mode Word Grid

Name _____

Date _____

Mean, Median, Mode Word Grid

Situation	Mean	Median	Mode
Calculating your grade for a class			
Ordering jeans for the Gap			
The average age of people in a 6 th grade class when the teacher is included			

Unit 1, Activity 6, Input-Output Tables

Name: _____

Date: _____

Input-Output Tables

Maria received \$150 for her birthday. She put all of the money except for \$50 in her savings account. If she puts \$15 each month from her allowance into her savings, how much will she have after one month? Two months? Five months?

Input	Output
0	
1	
2	
3	
4	
5	

What is the rule for the input-output table?

Rule: _____

Use the rule to help determine how much Maria will have in her savings after one year. Two years?

Unit 1, Activity 6, Input-Output Tables with Answers

Input-Output Tables

Maria received \$150 for her birthday. She put all of the money except for \$50 in her savings account. If she puts \$15 each month from her allowance into her savings, how much will she have after one month? Two months? Five months?

Input	Output
0	100
1	115
2	130
3	145
4	160
5	175

What is the rule for the input-output table?

Rule: \$100 plus \$15 per month

Use the rule to help determine how much Maria will have in her savings after one year. Two years?

Equation: $100 + 15m = t$ (optional)

One year: $100 + 15(12) = t$
 $100 + 180 = t$
 $280 = t$

Two years: $100 + 15(24) = t$
 $100 + 360 = t$
 $460 = t$

Unit 1, Activity 7, What's My Pattern?

Name _____

Date _____

Examine the table, identify the pattern and find the missing data for each input-output table.

1. Identify the pattern for the number of quarts of water required to raise different numbers of goldfish in an aquarium.

# goldfish	1	2	3	5		15
# quarts of water	4	6		12	22	

Pattern _____

2. For a school project, Sara and her 3 friends made hair scrunchies to sell for \$3 each. They were saving their money for a trip to Astroworld and started with \$10. They need a total of \$73 for the trip. Complete the table below to determine how many scrunchies they need to make and sell.

# scrunchies	0	1		10	15	
Amount of money			\$16			\$73

Pattern _____

Unit 1, Activity 7, What's My Pattern? with Answers

Examine the table, identify the pattern and find the missing data for each input-output table.

1. Identify the pattern for the number of quarts of water required to raise different numbers of goldfish in an aquarium.

# goldfish	1	2	3	5	10	15
# quarts of water	4	6	8	12	22	32

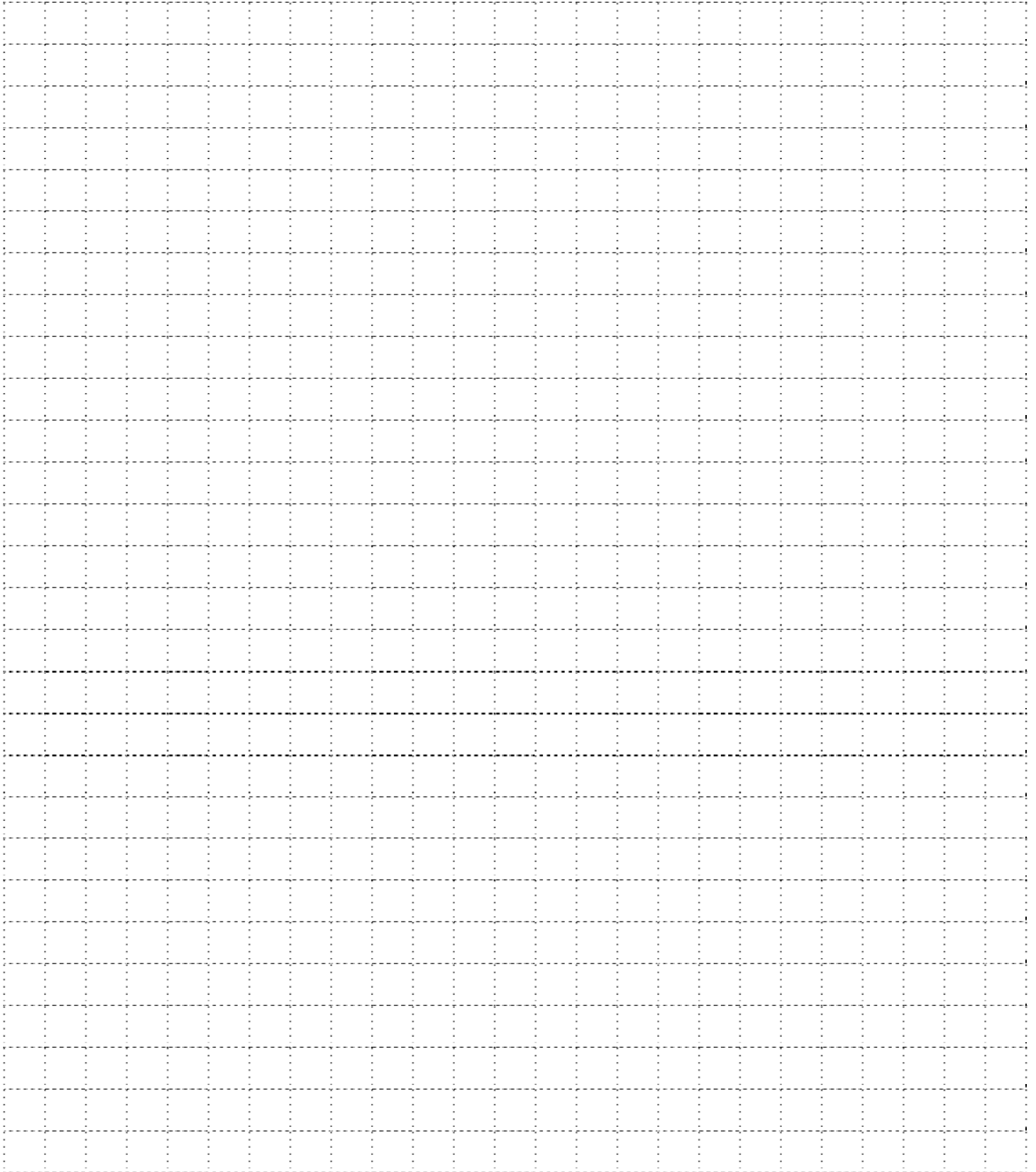
Pattern each additional goldfish requires 2 more quarts of water

2. For a school project, Sara and her 3 friends made hair scrunchies to sell for \$3 each. They were saving their money for a trip to Astroworld and started with \$10. They need a total of \$73 for the trip. Complete the table below to determine how many scrunchies they need to make and sell.

# scrunchies	0	1	2	10	15	21
Amount of money	\$10	\$13	\$16	\$40	\$55	\$73

Pattern each additional scrunchie adds \$3 to the total

Unit 1, Activity 8, Graph Paper

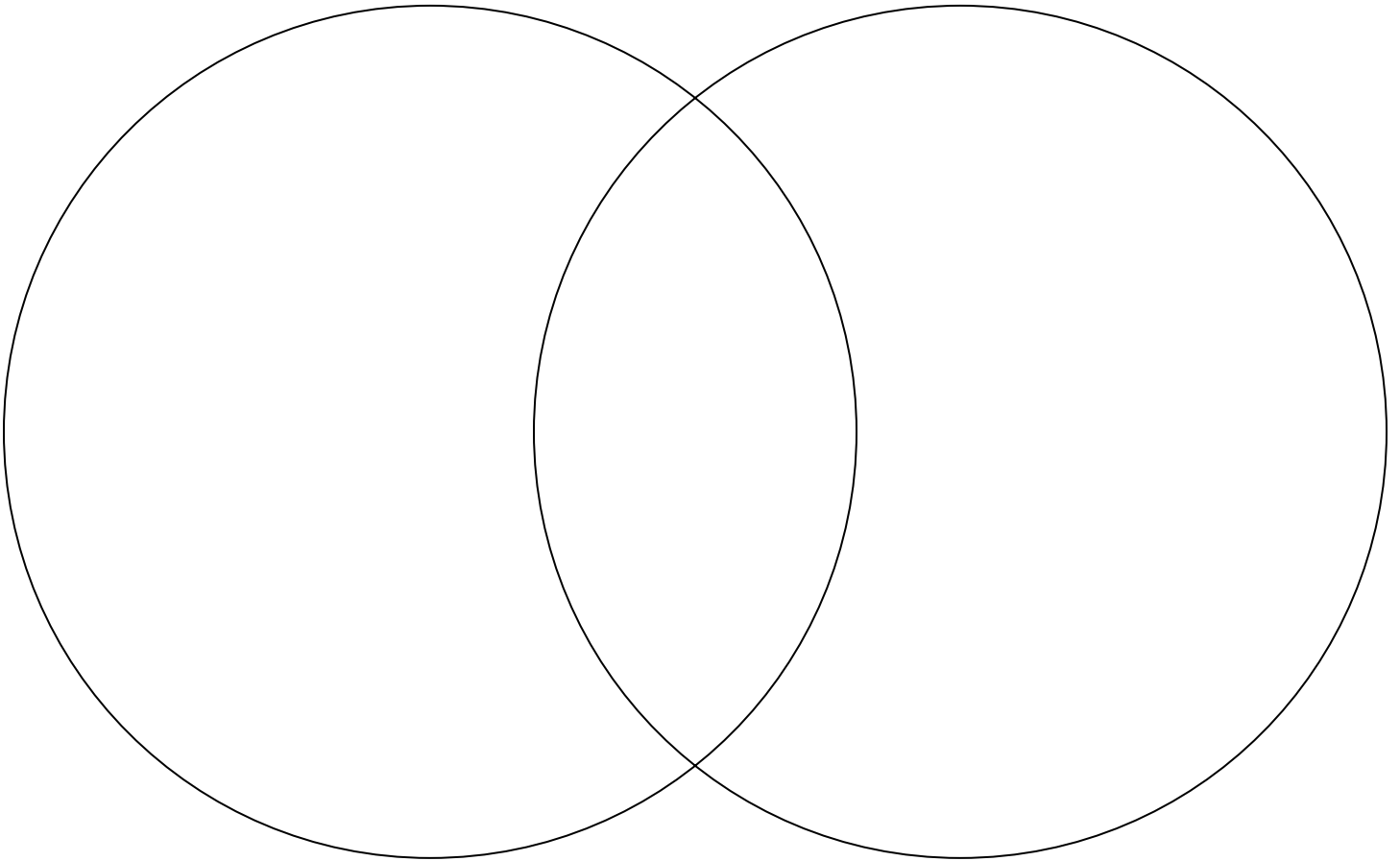


Unit 1, Activities 9 and 10, Venn Diagram

Name: _____

Date: _____

Venn Diagram



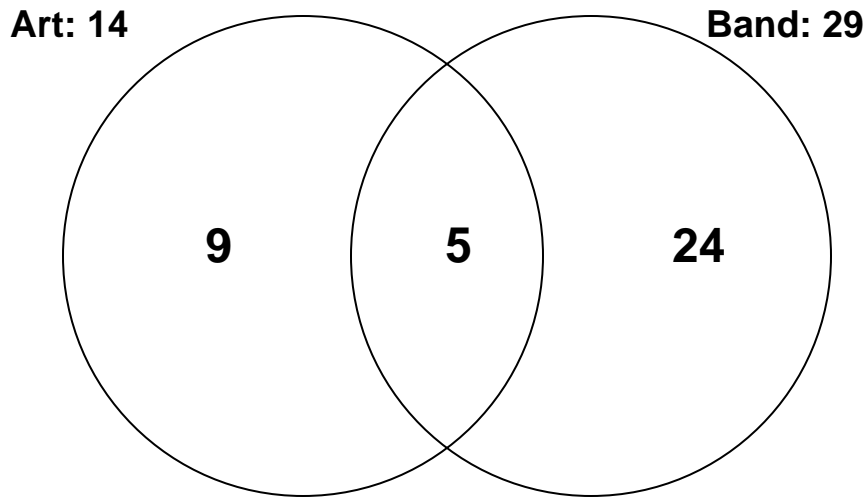
Venn Diagram Story Chain

There are forty students in the 6th grade.

14 are taking art and 29 are taking band.

Five students are taking both classes.

How many students are just taking art?



Nine students are just taking art.

Unit 2, Activity 1, Factor Game

1	2	3	4	5	Score	
					Player 1	Player 2
6	7	8	9	10		
11	12	13	14	15		
16	17	18	19	20		
21	22	23	24	25		
26	27	28	29	30		

Unit 2, Activity 1, First Moves

First Move	factors
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

First Move	factors
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

Unit 2, Activity 1, First Move with Answers

First Move	factors
1	<i>1</i>
2	<i>1, 2</i>
3	<i>1, 3</i>
4	<i>1, 2, 4</i>
5	<i>1, 5</i>
6	<i>1, 2, 3, 6</i>
7	<i>1, 7</i>
8	<i>1, 2, 4, 8</i>
9	<i>1, 3, 9</i>
10	<i>1, 2, 5, 10</i>
11	<i>1, 11</i>
12	<i>1, 2, 3, 4, 6, 12</i>
13	<i>1, 13</i>
14	<i>1, 2, 7, 14</i>
15	<i>1, 3, 5, 15</i>

First Move	factors
16	<i>1, 2, 4, 8, 16</i>
17	<i>1, 17</i>
18	<i>1, 2, 3, 6, 9, 18</i>
19	<i>1, 19</i>
20	<i>1, 2, 4, 5, 10, 20</i>
21	<i>1, 3, 7, 21</i>
22	<i>1, 2, 11, 22</i>
23	<i>1, 23</i>
24	<i>1, 2, 3, 4, 6, 8, 12, 24</i>
25	<i>1, 5, 25</i>
26	<i>1, 2, 13, 26</i>
27	<i>1, 3, 9, 27</i>
28	<i>1, 2, 4, 7, 14, 28</i>
29	<i>1, 29</i>
30	<i>1, 2, 3, 5, 6, 10, 15, 30</i>

Unit 2, Activity 1, Discussion Questions

Name _____ Date _____

Use your FACTOR GAME CHART to answer the following questions:

1. What is the best first move? Why?
2. What is the worst first move? Why?
3. List all the first moves that allow your partner to score only one point.
4. What special name do we give this list of numbers in question 3?
5. List all of the first moves that allow your partner to score more than one point.
6. What special name do we give this list of numbers in question 5?
7. Which first move would make you lose a turn? Why?

Unit 2, Activity 1, Discussion Questions with Answers

Name _____ Date _____

Use your FACTOR GAME CHART to answer the following questions:

1. What is the best first move? Why?

29, because you would receive 29 points and your opponent would only be able to circle the number 1 for a total of 1 point.

2. What is the worst first move? Why?

30, because it has 8 factors and a total score of 42 points

3. List all the first moves that allow your partner to score only one point.

2, 3, 5, 7, 11, 13, 17, 19, 23, 29

4. What special name do we give this list of numbers?

Prime Numbers

5. List all of the first moves that allow your partner to score more than one point.

4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30

6. What special name do we give this list of numbers?

Composite Numbers

7. Which first move would make you lose a turn? Why?

1, because if you circle a number that already has all its factors circled, you lose your turn, and the only factor of 1 is 1.

The Product Game

Products								
1	2	3	4	5	6			
7	8	9	10	12	14			
15	16	18	20	21	24			
25	27	28	30	32	35			
36	40	42	45	48	49			
54	56	63	64	72	81			
Factor List								
1	2	3	4	5	6	7	8	9

Unit 2, Activity 3, Factors Table

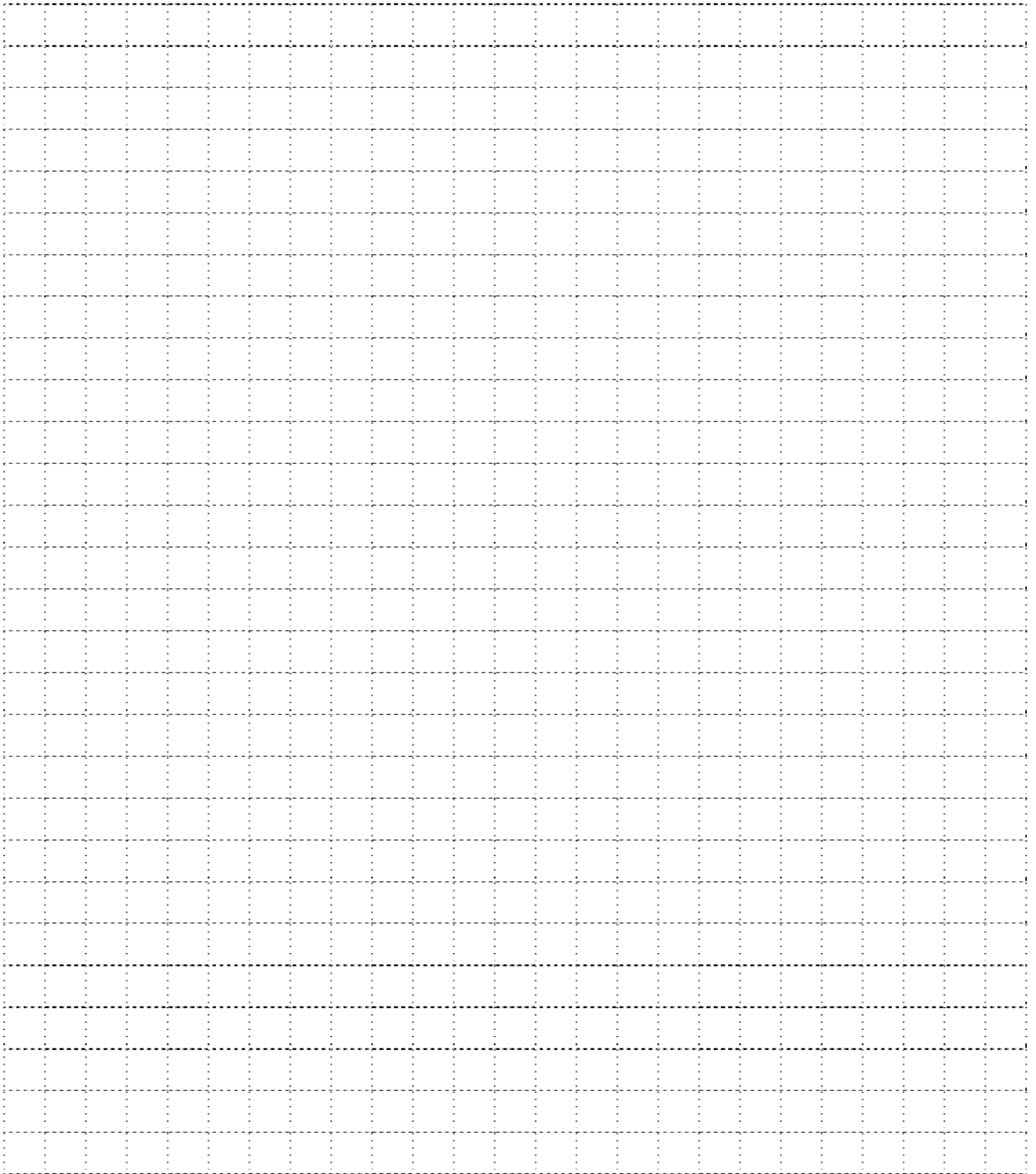
Name _____ Date _____

Number (# of tile)	Number of rectangles built	Dimensions of the rectangles built	Different Factors of the number	Number of different factors of the number	Prime or composite	Prime factorization
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

Unit 2, Activity 3, Factors Table with Answers

Number (# of tile)	Number of rectangles built	Dimensions of the rectangles built	Different Factors of the number	Number of different factors	Prime or composite	Prime factorization
1	1	1 x 1	1	1		1
2	1	1x2	1,2	2	P	1 x 2
3	1	1 x 3	1,3	2	P	1 x 3
4	2	1 x 4, 2 x 2	1,2,4	3	C	1 x 2 ²
5	1	1 x 5	1, 5	2	P	1 x 5
6	2	1 x 6, 2 x 3	1, 2, 3, 6	4	C	1 x 2 x 3
7	1	1 x 7	1, 7	2	P	1 x 7
8	2	1 x 8, 2 x 4	1, 2, 4, 8	4	C	1 x 2 ³
9	2	1 x 9, 3 x 3	1, 3, 9	3	C	1 x 3 ²
10	2	1 x 10, 2 x 5	1, 2, 5, 10	4	C	1 x 2 x 5
11	1	1 x 11	1, 11	2	P	1 x 11
12	3	1 x 12, 2 x 6, 3 x 4	1, 2, 3, 4, 6, 12	6	C	1 x 2 ² x 3
13	1	1 x 13	1, 13	2	P	1 x 13
14	2	1 x 14, 2 x 7	1, 2, 7, 14	4	C	1 x 2 x 7
15	2	1 x 15, 3 x 5	1, 3, 5, 15	4	C	1 x 3 x 5
16	3	1 x 16, 2 x 8, 4 x 4	1, 2, 4, 8, 16	5	C	1 x 2 ⁴
17	1	1 x 17	1, 17	2	P	1 x 17
18	3	1 x 18, 2 x 9, 3 x 6	1, 2, 3, 6, 9, 18	6	C	1 x 2 x 3 ²
19	1	1 x 19	1, 19	2	P	1 x 19
20	3	1 x 20, 2 x 10, 4 x 5	1, 2, 4, 5, 10, 20	6	C	1 x 2 ² x 5
21	2	1 x 21, 3 x 7	1, 3, 7, 21	4	C	1 x 3 x 7
22	2	1 x 22, 2 x 11	1, 2, 11, 22	4	C	1 x 2 x 11
23	1	1 x 23	1, 23	2	P	1 x 23
24	4	1 x 24, 2 x 12, 3 x 8, 4 x 6	1, 2, 3, 4, 6, 8, 12, 24	8	C	1 x 2 ³ x 3
25	3	1 x 25, 5 x 5	1, 5, 25	3	C	1 x 5 ²

Unit 2, Activity 3 and 5, Grid Paper



Divisibility Rules

If the digit in the ones place is even, the number is divisible by 2.

If the sum of the digits is divisible by 3, the number is divisible by 3.

If the number formed by the last two digits is divisible by 4, the number is divisible by 4.

If the digit in the ones place is 5 or 0, the number is divisible by 5.

If the number is divisible by both 2 and 3, the number is divisible by 6.

If the last three digits form a number divisible by 8, the number is divisible by 8.

If the sum of the digits is divisible by 9, the number is divisible by 9.

Unit 2, Activity 4, Common Factors

Name _____ Date _____

Find the Common Factors of each number pair.

1. 99, 11 _____
2. 48, 24 _____
3. 24, 15 _____
4. 14, 56 _____
5. 3, 45 _____
6. 9, 27 _____
7. 14, 49 _____
8. 4, 64 _____
9. 6, 22 _____
10. 10, 45 _____
11. 3, 11 _____
12. 9, 33 _____
13. 22, 10 _____
14. 4, 14 _____
15. 12, 21 _____
16. 16, 6 _____
17. 104, 8 _____
18. 144, 16 _____
19. 30, 9 _____
20. 4, 50 _____

Unit 2, Activity 4, Common Factors with Answers

Name _____ Date _____

Find the Common Factors of each number pair.

- | | |
|------------|---------------------------------|
| 1. 99, 11 | <u>1, 11</u> |
| 2. 48, 24 | <u>1, 2, 3, 4, 6, 8, 12, 24</u> |
| 3. 24, 15 | <u>1, 3</u> |
| 4. 14, 56 | <u>1, 2, 7, 14</u> |
| 5. 3, 45 | <u>1, 3</u> |
| 6. 9, 27 | <u>1, 3, 9</u> |
| 7. 14, 49 | <u>1, 7</u> |
| 8. 4, 64 | <u>1, 2, 4</u> |
| 9. 6, 22 | <u>1, 2</u> |
| 10. 10, 45 | <u>1, 5</u> |
| 11. 3, 11 | <u>1</u> |
| 12. 9, 33 | <u>1, 3</u> |
| 13. 22, 10 | <u>1, 2</u> |
| 14. 4, 14 | <u>1, 2</u> |
| 15. 12, 21 | <u>1, 3</u> |
| 16. 16, 6 | <u>1, 2</u> |
| 17. 100, 8 | <u>1, 2, 4</u> |
| 18. 96, 16 | <u>1, 2, 4, 6, 8, 16</u> |
| 19. 30, 9 | <u>1, 3</u> |
| 20. 4, 50 | <u>1, 2</u> |

Unit 2, Activity 5, Greatest Common Factors

Name _____ Date _____

Find the greatest common factor for each set of numbers.

1. 6, 24 _____

2. 12, 32 _____

3. 30, 90 _____

4. 12, 15, 24 _____

5. 10, 32, 64 _____

Solve.

6. A florist has 36 roses, 27 tulips, and 18 carnations she must use to create bouquets. What is the largest number of bouquets she can make without having any flowers left over?

7. Say you have 60 pencils, 90 pens and 120 tablets, and you want to make packages of pencils, pens and tablets to donate to your school for students who cannot afford these supplies. What is the maximum number of packages you can make using all items, and how many pencils, pens and tablets will be in each package?

Unit 2, Activity 5, Greatest Common Factors with Answers

Name _____ Date _____

Find the greatest common factor for each set of numbers.

1. 6, 24 6

2. 12, 32 4

3. 30, 90 30

4. 12, 15, 24 3

5. 10, 32, 64 2

Solve.

6. A florist has 36 roses, 27 tulips, and 18 carnations she must use to create bouquets. What is the largest number of bouquets she can make without having any flowers left over?

Roses: 1, 2, 3, 4, 6, 9, 12, 18, 36

Tulips: 1, 3, 9, 27

Carnations: 1, 2, 3, 6, 9, 18

The GCF is 9 so the florist can make 9 bouquets.

7. Say you have 60 pencils, 90 pens and 120 tablets, and you want to make packages of pencils, pens and tablets to donate to your school for students who cannot afford these supplies. What is the maximum number of packages you can make using all items, and how many pencils, pens and tablets will be in each package?

Pencils: 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

Pens: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90

Tablets: 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 120

You could make 30 packages. Each package would have 2 pencils, 3 pens, and 4 tablets.

Unit 2, Activity 6, Least Common Multiple

Name _____

Date _____

Find the least common multiple for each set of numbers.

1. 6, 24 _____

2. 12, 32 _____

3. 30, 90 _____

4. 12, 15, 24 _____

5. 10, 32, 64 _____

Solve.

6. During the summer months, one ice cream truck visits Jeannette's neighborhood every 4 days and another ice cream truck visits her neighborhood every 5 days. If both trucks visited today, when is the next time both trucks will visit on the same day?

7. Mrs. Hernandez waters one of her plants every 10 days and another plant every 14 days. If she waters both plants today, when is the next time both plants will be watered on the same day?

Unit 2, Activity 6, Least Common Multiple with Answers

Find the least common multiple for each set of numbers.

1. 6, 24 24

2. 12, 32 96

3. 30, 90 90

4. 6, 12, 15 60

5. 10, 32, 64 320

Solve.

6. During the summer months, one ice cream truck visits Jeannette's neighborhood every 4 days and another ice cream truck visits her neighborhood every 5 days. If both trucks visited today, when is the next time both trucks will visit on the same day?

4, 8, 12, 16, 20, 24

5, 10, 15, 20, 25

It will be 20 days before both trucks visit on the same day again.

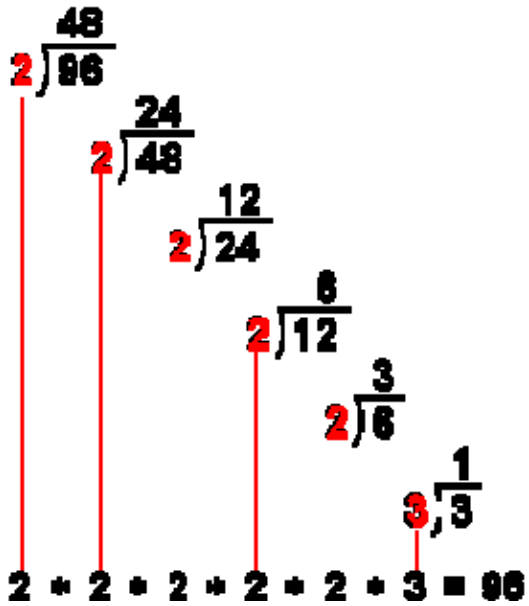
7. Mrs. Hernandez waters one of her plants every 10 days and another plant every 14 days. If she waters both plants today, when is the next time both plants will be watered on the same day?

10, 20, 30, 40, 50, 60, 70, 80, 90

14, 28, 42, 56, 70, 84

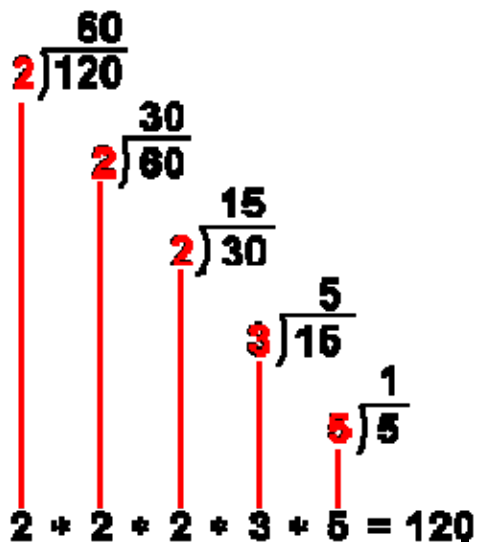
It will be 70 days before both plants are watered on the same day again.

Prime Factorization of 96:



$2 \times 2 \times 2 \times 2 \times 2 \times 3$ or $2^5 \times 3$

Prime Factorization of 120:



$2 \times 2 \times 2 \times 3 \times 5$ or $2^3 \times 3 \times 5$

Unit 2, Activity 7, Prime Factorization

Name _____ Date _____

Find the prime factorization of each number.

1. 48

2. 60

3. 34

4. 47

5. 10

6. 44

7. 16

8. 69

9. 32

10. 100

Unit 2, Activity 7, Prime Factorization with Answers

Name _____ Date _____

Find the prime factorization of each number.

2. 48
 $2^4 \times 3$

2. 60
 $2^2 \times 3 \times 5$

3. 34
 2×17

4. 47
47

5. 10
 2×5

6. 44
 $2^2 \times 11$

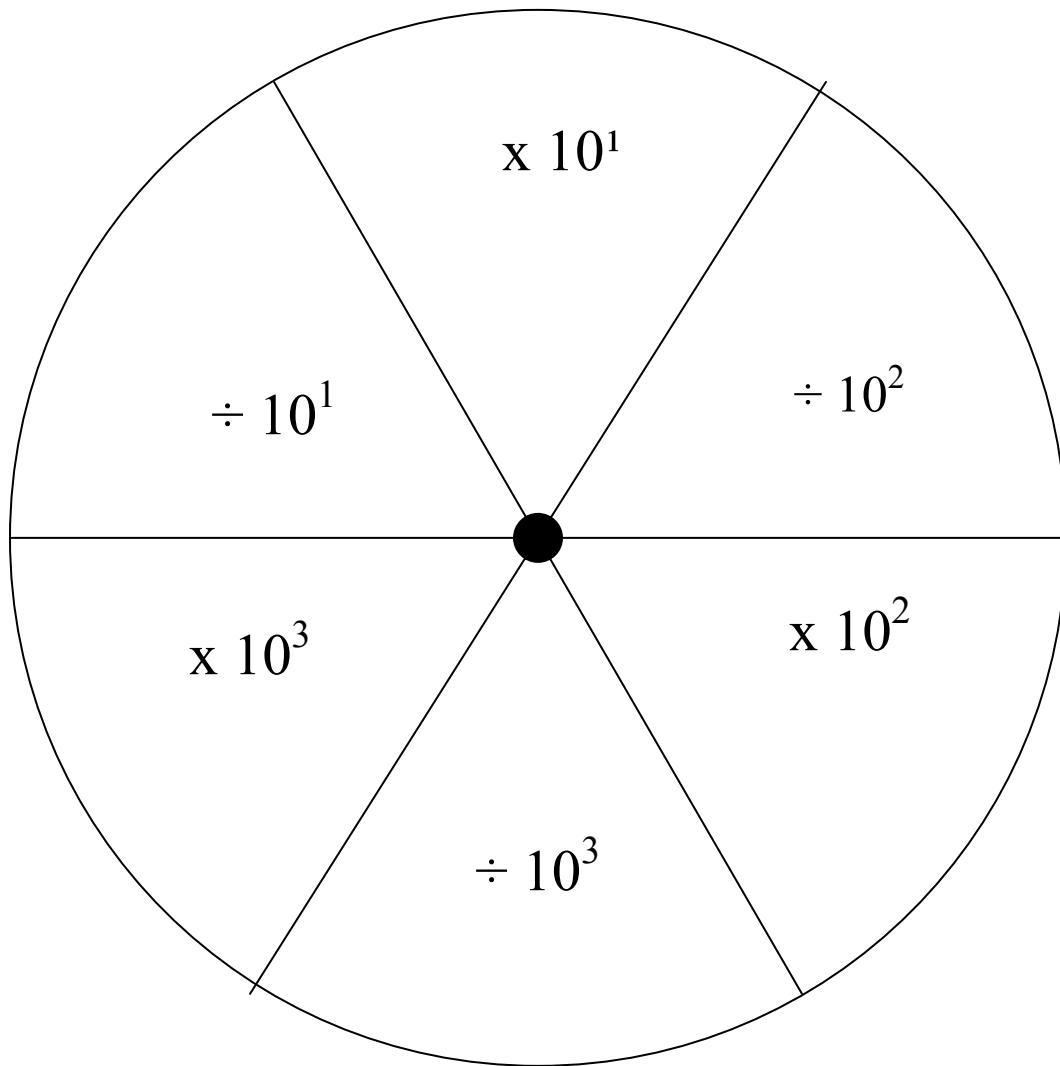
7. 16
 2^4

8. 69
 3×23

9. 32
 2^5

10. 100
 $2^2 \times 5^2$

Unit 2, Activity 8, Spinner



Unit 2, Activity 8, Powers of 10

Name _____ Date _____

THOUSANDS	HUNDREDS	TENS	ONES	TENTHS	HUNDREDTHS	THOUSANDTHS
-----------	----------	------	------	--------	------------	-------------

Starting Number 7532.981

1st Spin – operation _____ New Number _____

Write the new number in words:

2nd Spin - operation _____ New Number _____

Write the new number in words:

3rd Spin - operation _____ New Number _____

Write the new number in words:

4th Spin - operation _____ New Number _____

Write the new number in words:

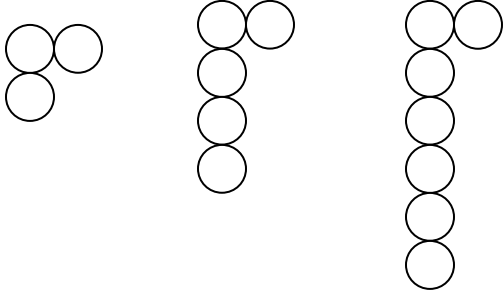
Who has the largest number after spin #4? _____

Write the winning number. _____

Unit 2, Activity 10, Sequences

Name _____ Date _____

- Draw the next three arrangements of circles for each sequence.
- Complete the list of numbers in the sequence for the pattern
- Identify if it is an arithmetic or geometric sequence.

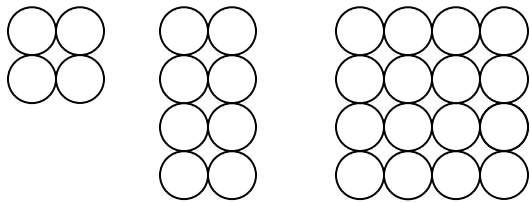


Arrangement 1 Arrangement 2 Arrangement 3 Arrangement 4 Arrangement 5 Arrangement 6

Arithmetic or Geometric _____ Why?

3, 5, 7, _____, _____, _____

Arithmetic or Geometric _____ Why?



Arrangement 1 Arrangement 2 Arrangement 3 Arrangement 4 Arrangement 5 Arrangement 6

Arithmetic or Geometric _____ Why?

4, 8, 16, _____, _____, _____

Arithmetic or Geometric _____ Why?

Unit 3, Activity 3, Writing Decimals

Name _____ Date _____

Use the decimal 25.37. Write the place value of each digit.

1. 5 _____ 2. 3 _____ 3. 7 _____

Write the decimal.

4. six tenths _____
5. one and forty-five hundredths _____
6. two and two hundredths _____
7. twenty-eight and nine tenths _____
8. fifty-six and eighty-eight hundredths _____
9. seventy-one and one hundredth _____
10. fifteen hundredths _____

Write the word name for each decimal.

11. 0.7 _____
12. 12.8 _____
13. 0.56 _____
14. 0.03 _____

Unit 3, Activity 3, Writing Decimals with Answers

Name _____ Date _____

Use the decimal 25.37. Write the place value of each digit.

1. 5 *ones* 2. 3 *tenths* 3. 7 *hundredths*

Write the decimal.

- | | | |
|-----|---------------------------------------|--------------|
| 4. | six tenths | <i>0.6</i> |
| 5. | one and forty-five hundredths | <i>1.45</i> |
| 6. | two and two hundredths | <i>2.0</i> |
| 7. | twenty-eight and nine tenths | <i>28.9</i> |
| 8. | fifty-six and eighty-eight hundredths | <i>56.88</i> |
| 9. | seventy-one and one hundredth | <i>71.01</i> |
| 10. | fifteen hundredths | <i>0.15</i> |

Write the word name for each decimal.

11. 0.7 *seven tenths*
12. 12.8 *twelve and eight tenths*
13. 0.56 *fifty-six hundredths*
14. 0.03 *three hundredths*

Unit 3, Activity 3, I Have Who Has

<p>I have: 3.02</p> <p>Who Has: One ten-thousandth</p>	<p>I have: 0.0001</p> <p>Who Has: Forty-two and one tenth</p>	<p>I have: 42.1</p> <p>Who Has: One hundredth</p>	<p>I have: 0.01</p> <p>Who Has: Four and twenty on hundredths</p>
<p>I have: 4.21</p> <p>Who Has: Three and two thousandths</p>	<p>I have: 3.002</p> <p>Who Has: Forty-two and one hundredth</p>	<p>I have: 42.01</p> <p>Who Has: Five and two tenths</p>	<p>I have: 5.2</p> <p>Who Has: Seven and forty one hundredths</p>
<p>I have: 7.41</p> <p>Who Has: Ten and five tenths</p>	<p>I have: 10.5</p> <p>Who Has: Five and two hundredths</p>	<p>I have: 5.02</p> <p>Who Has: Ten and five hundredths</p>	<p>I have: 10.05</p> <p>Who Has: Five and two thousandths</p>

Unit 3, Activity 3, I Have Who Has

<p>I have: 5.002</p> <p>Who Has: One and one thousandth</p>	<p>I have: 1.001</p> <p>Who Has: Two hundredths</p>	<p>I have: 0.02</p> <p>Who Has: Two and two tenths</p>	<p>I have: 2.2</p> <p>Who Has: Three and two tenths</p>
<p>I have: 3.2</p> <p>Who Has: One and one hundredth</p>	<p>I have: 1.01</p> <p>Who Has: One thousandth</p>	<p>I have: 0.001</p> <p>Who Has: Ten and five thousandths</p>	<p>I have: 10.005</p> <p>Who Has: One tenth</p>
<p>I have: 0.1</p> <p>Who Has: Two and two hundredths</p>	<p>I have: 2.02</p> <p>Who Has: Two tenths</p>	<p>I have: 0.2</p> <p>Who Has: Two and two thousandths</p>	<p>I have: 2.002</p> <p>Who Has: Three and two hundredths</p>

Unit 3, Activity 3, Decimal Cards

0.01	0.02	0.04	0.05
0.125	0.15	0.25	0.5
0.2	0.3	0.35	0.4
0.45	0.55	0.6	0.68
0.8	0.85	0.99	0.12

Unit 3, Activity 7, Rolling for Decimals

Name _____

Date _____

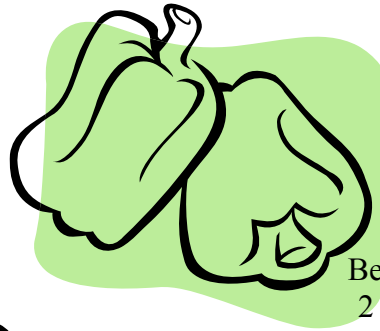
Roll the number cubes. Then using the digits rolled, make the largest and smallest decimal number possible. All numbers should be less than one.

Roll	Largest Number	Smallest Number
1		
2		
3		
4		
5		
6		

Unit 3, Activity 8, Grocery Ad



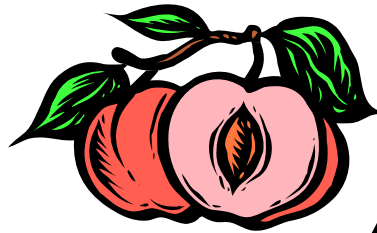
Watermelon
\$4.99



Bell Peppers
2 for \$1.00



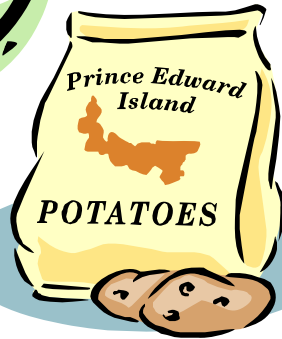
Corn
6 for \$1.98



Peaches
\$1.69 lb.



Tomatoes
\$1.29 lb.



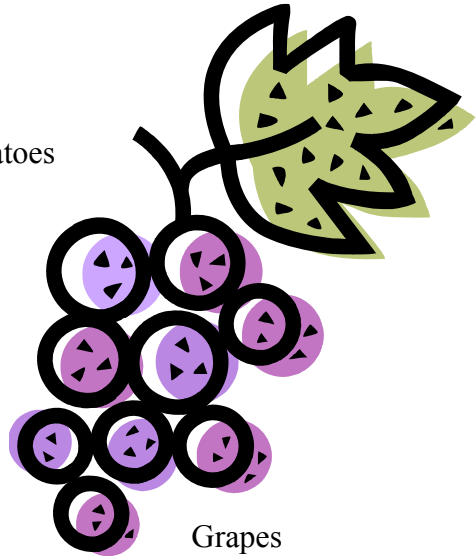
5 lb. bag of potatoes
\$2.99



3 lb. bag of onions
\$1.69



Apples
\$1.19 lb.

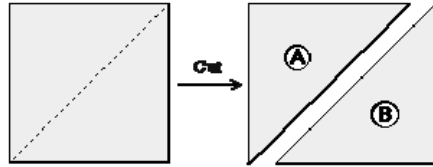


Grapes
\$0.99 lb.

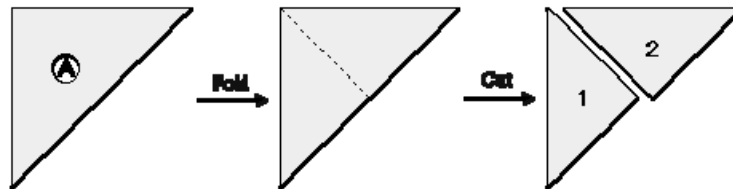
Unit 3, Activity 9, Tangrams

Fold and cut a square sheet of paper by following these instructions:

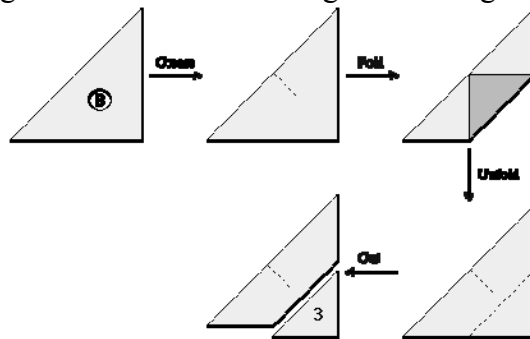
1. Fold the square in half diagonally, unfold, and cut along the crease into two congruent triangles.



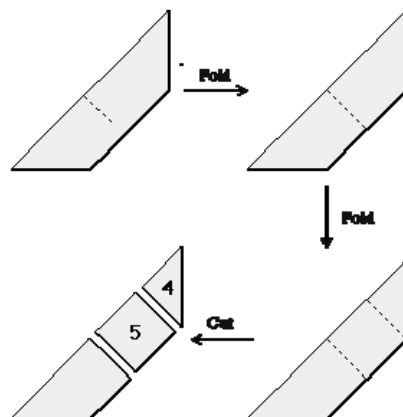
2. Take one of these triangles. Fold in half, unfold, and cut along the crease. Set both of these triangles aside.



3. Take the other large triangle. Lightly crease to find the midpoint of the longest side. Fold so that the vertex of the right angle touches that midpoint, unfold and cut along the crease. You will have formed a middle-sized triangle and a trapezoid. Set the middle-sized triangle aside with the two large-size triangles.

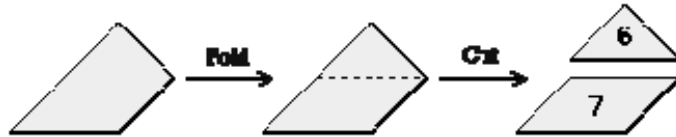


4. Take the trapezoid, fold it in half, unfold, and cut. To create a square and a small-sized triangle from the other trapezoid half, fold the acute base angle to the adjacent right base angle and cut on the crease. Place these two shapes aside.



Unit 3, Activity 9, Tangrams

5. To create a parallelogram and a small-sized triangle, take one of the trapezoid halves. Fold the right base angle to the opposite obtuse angle, crease, unfold, and cut. Place these two shapes aside.



6. You should have the 7 tangram pieces:
- 2 large congruent triangles
 - 1 middle-sized triangle
 - 2 small congruent triangles
 - 1 parallelogram
 - 1 square
7. The pieces may now be arranged in many shapes. Try recreating the original square.

Unit 3, Activity 10, Are You Positive?

Name _____

Date _____

Write an integer to represent each situation:

1. 10 degrees above zero
2. a loss of 16 dollars
3. a gain of 5 points
4. 8 steps backward

Name the opposite of each integer.

5. -12
6. 21
7. -9
8. 15

Write a situation to represent each integer.

9. -5
10. 8

Unit 3, Activity 10, Are You Positive? with Answers

Name _____

Date _____

Write an integer to represent each situation:

- | | | |
|----|-----------------------|-----|
| 1. | 10 degrees above zero | +10 |
| 2. | a loss of 16 dollars | -16 |
| 3. | a gain of 5 points | +5 |
| 4. | 8 steps backward | -8 |

Name the opposite of each integer.

- | | | |
|----|-----|-----|
| 5. | -12 | +12 |
| 6. | 21 | -21 |
| 7. | -9 | +9 |
| 8. | 15 | -15 |

Write a situation to represent each integer.

- | | | |
|-----|----|--------------------------|
| 9. | -5 | <i>Answers will vary</i> |
| 10. | 8 | <i>Answers will vary</i> |

Unit 4, Activity 1, Fractions

Name: _____

Date: _____

Word/Phrase	+	√	-	Example	Definition
Greatest Common Factor (GCF)					
Least Common Multiple (LCM)					
Dimensions					
Denominator					
Numerator					
Equivalent Fractions					

Unit 4, Activity 2, Fraction Table

1 whole											
$\frac{1}{2}$						$\frac{1}{2}$					
$\frac{1}{3}$				$\frac{1}{3}$				$\frac{1}{3}$			
$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$		
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$
$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$

Unit 4, Activity 2, Fraction Operations

Name _____

Date _____

Using your fraction pieces, model each situation and sketch a diagram that represents the situation.

1. Suppose you are building a tree house. A board is $1\frac{11}{12}$ yard long. You need $\frac{7}{12}$ yard of the board for a brace. How much is left over after you cut off the piece you need for the brace?
2. In an experiment, a kudzu plant is $1\frac{1}{6}$ feet tall. Over time, the plant grows to $4\frac{5}{6}$ feet. How much did the plant grow?
3. For school ribbons, $\frac{1}{5}$ of the students chose to have a red background, $\frac{2}{5}$ of the students chose to have a white background, and the rest of the students chose a blue background. What fraction of the students chose the blue background?
4. Suppose it rains $\frac{3}{12}$ inch on Friday and $\frac{4}{6}$ inch on Saturday.
 - A) What is the total rainfall for the two days?
 - B) What is the difference of rainfall for the two days?
5. A typical garden spider is $\frac{3}{4}$ inch long. A typical black widow spider is $\frac{1}{2}$ inch long.
 - A) How much longer is the garden spider?
 - B) Would the total length of both spiders be greater or less than one inch? Justify your answer with a diagram.

Unit 4, Activity 2, Fraction Operations with Answers

Name _____

Date _____

Using your fraction pieces, model each situation and sketch a diagram that represents the situation.

1. Suppose you are building a tree house. A board is $1\frac{1}{12}$ yard long. You need $\frac{7}{12}$ yard of the board for a brace. How much is left over after you cut off the piece you need for the brace?

$$1\frac{1}{12} - \frac{7}{12} = \frac{4}{12} \text{ or } \frac{1}{3} \text{ inch}$$

2. In an experiment, a kudzu plant is $1\frac{1}{6}$ feet tall. Over time, the plant grows to $4\frac{5}{6}$ feet. How much did the plant grow?

$$4\frac{5}{6} - 1\frac{1}{6} = 3\frac{4}{6} \text{ or } 3\frac{2}{3} \text{ feet}$$

3. For school ribbons, $\frac{1}{5}$ of the students chose to have a red background, $\frac{2}{5}$ of the students chose to have a white background, and the rest of the students chose a blue background. What fraction of the students chose the blue background?

$$\begin{aligned} \frac{1}{5} + \frac{2}{5} &= \frac{3}{5} \\ 1 - \frac{3}{5} &= \frac{2}{5} \text{ of the ribbons will have a blue background} \end{aligned}$$

4. Suppose it rains $\frac{3}{12}$ inch on Friday and $\frac{4}{6}$ inch on Saturday.

- a. What is the total rainfall for the two days?

$$\frac{3}{12} + \frac{4}{6} = \frac{11}{12} \text{ inches}$$

- b. What is the difference of rainfall for the two days?

$$\frac{4}{6} - \frac{3}{12} = \frac{5}{12} \text{ inches}$$

5. A typical garden spider is $\frac{3}{4}$ inch long. A typical black widow spider is $\frac{1}{2}$ inch long.

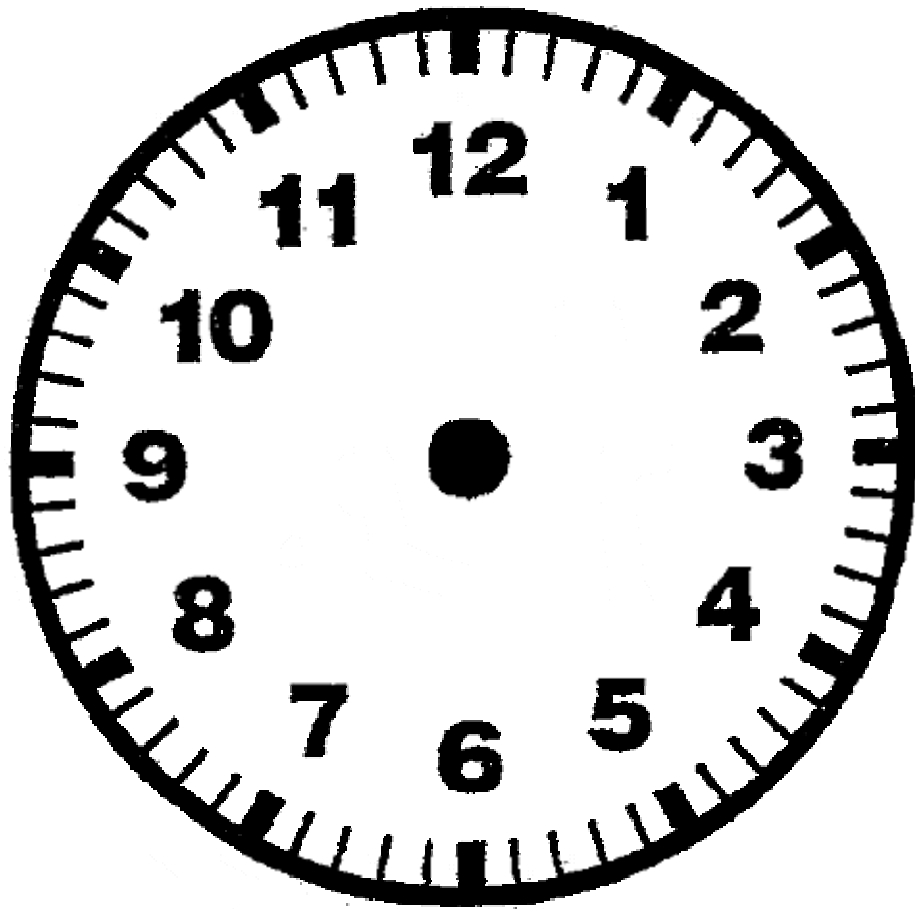
- a. How much longer is the garden spider?

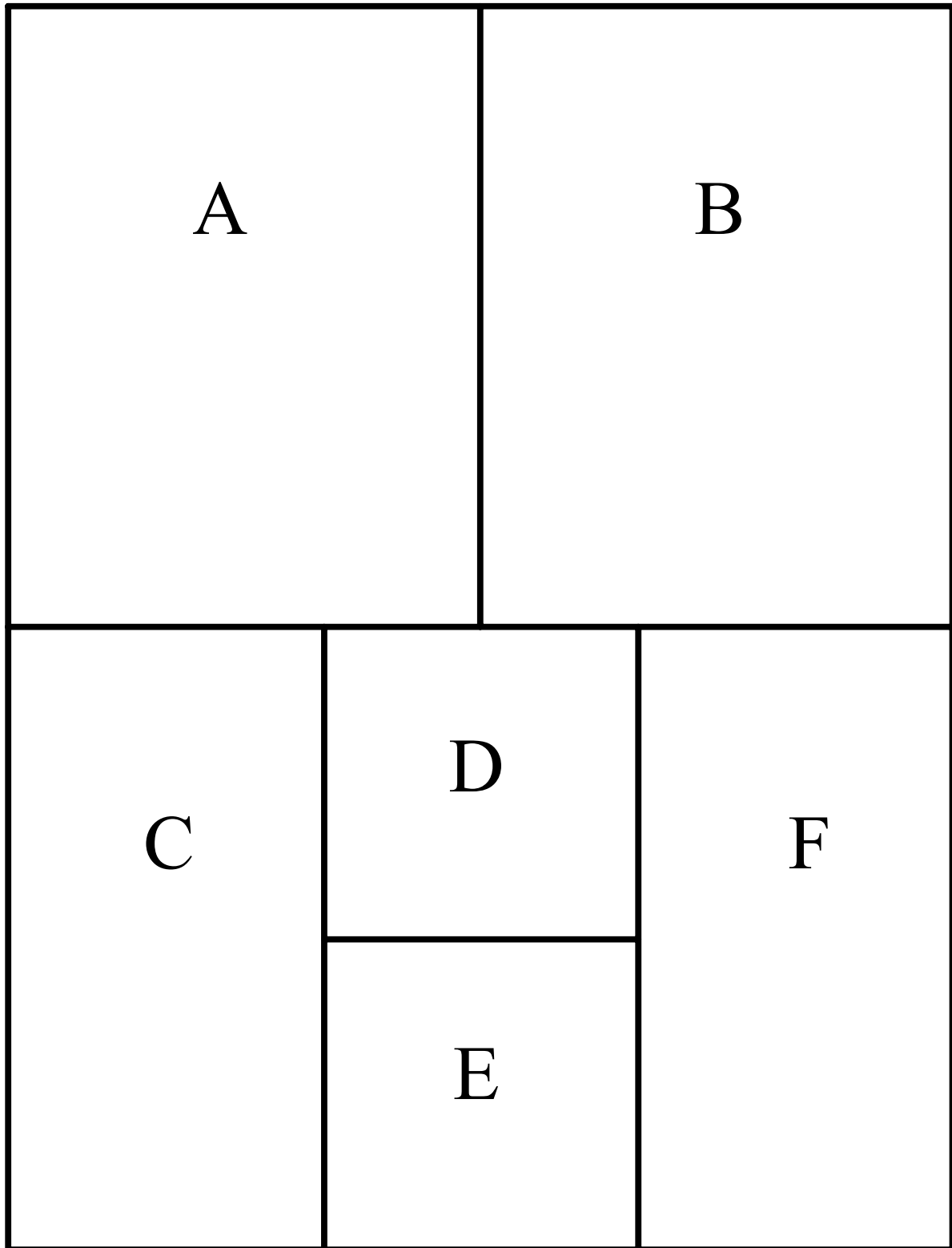
$$\frac{3}{4} - \frac{1}{2} = \frac{1}{4} \text{ inch longer}$$

- b. Would the total length of both spiders be greater or less than one inch? Justify your answer with a diagram.

Yes, diagrams will vary.

Unit 4, Activity 3, Clock Face





Unit 4, Activity 6, Landscaping

Name _____

Date _____

Have students work in small groups to sketch the following problem. Grid paper is available if you want to use it.

1) A local business has given your class 36 white, 90 pink, and 54 hybrid azaleas for the garden. Each row will have the same number of plants with no mixing of colors. Sketch all possible arrangements.

a) What is the greatest number of azaleas that could be put in each row?

b) Using the answer to part a, what fractional part of the garden is made up of the three types of azaleas?

2. Use the following diagram to write a situation that can be represented by this diagram. Write the fractional part represented with each type of flower.

Marigolds	Petunias
Roses	Daisies

Unit 4, Activity 6, Landscaping with Answers

Have students work in small groups to sketch the following problem. Grid paper is available if you want to use it.

1) A local business has given your class 36 white, 90 pink, and 54 hybrid azaleas for the garden. Each row will have the same number of plants with no mixing of colors. Sketch all possible arrangements.

Answers will vary

a) What is the greatest number of azaleas that could be put in each row?

18 azaleas per row

b) Using the answer to part a, what fractional part of the garden is made up of the three types of azaleas?

White = $\frac{1}{5}$, pink = $\frac{1}{2}$, hybrid = $\frac{3}{10}$

2. Use the following diagram to write a situation that can be represented by this diagram. Write the fractional part represented with each type of flower.

Marigolds	Petunias
Roses	Daisies

Marigolds $\frac{1}{4}$, Roses $\frac{1}{4}$, Petunias $\frac{1}{8}$, Daisies $\frac{3}{8}$

Unit 4, Activity 7, Decimal Operations

Name _____

Date _____

Solve.

1. $48.533 + 4.11$
2. $3.7 + 28.715$
3. $14.01 + 5.25$
4. $77.743 + 98.6$
5. $8.07 + 1.063$
6. $78.024 + 5.8$
7. $6.68 + 91.085$
8. $34.9 + 83.25$
9. $6.7 - 1.3$
10. $8.4 - 2.093$
11. $29.63 - 8.4$
12. $4.9 - 4.05$
13. $61.004 - 60.485$
14. $82.95 - 42.027$
15. $7.05 - 5.5$
16. $6.8 - 5.034$
17. Suzie wanted to buy new jeans and a new shirt for the school dance. Her mother took her shopping in a big store downtown, and they looked for just the right shirt for almost two hours! Finally, Suzie found the one she wanted. The price of the jeans was \$20.48 and the shirt's price was \$21.23. How much did Suzie's new outfit cost in all?
18. Scott has \$9.57 to spend on a new shirt at a store in Sydney. He likes a shirt that costs \$13.99. How much money does he need to borrow to buy the shirt that he likes?
19. Long-haired Lucy decided it was time for a new haircut. She went to the hairdressers with hair 74.2 cm long. When she left, it was 21.6 cm long. How much had the hairdressers taken off?
20. Katie is making a gift for her mom for Mother's Day. She will buy 2.98 feet of pink ribbon, 1.2 feet of white ribbon, and three inches of green ribbon. How many feet of ribbon will she buy in all?

Unit 4, Activity 7, Decimal Operations with Answers

Solve.

1. $48.533 + 4.11 = 52.643$

2. $3.7 + 28.715 = 32.415$

3. $14.01 + 5.25 = 19.26$

4. $77.743 + 98.6 = 176.343$

5. $8.07 + 1.063 = 9.133$

6. $78.024 + 5.8 = 83.824$

7. $6.68 + 91.085 = 97.765$

8. $34.9 + 83.25 = 118.15$

9. $6.7 - 1.3 = 5.4$

10. $8.4 - 2.093 = 6.307$

11. $29.63 - 8.4 = 21.23$

12. $4.9 - 4.05 = 0.85$

13. $61.004 - 60.485 = 0.519$

14. $82.95 - 42.027 = 40.923$

15. $7.05 - 5.5 = 1.55$

16. $6.8 - 5.034 = 1.766$

17. Suzie wanted to buy new jeans and a new shirt for the school dance. Her mother took her shopping in a big store downtown, and they looked for just the right shirt for almost two hours! Finally, Suzie found the one she wanted. The price of the jeans was \$20.48 and the shirt's price was \$21.23. How much did Suzie's new outfit cost in all?

\$41.71

18. Scott has \$9.57 to spend on a new shirt at a store in Sydney. He likes a shirt that costs \$13.99. How much money does he need to borrow to buy the shirt that he likes?

\$4.42

19. Long-haired Lucy decided it was time for a new haircut. She went to the hairdressers with hair 74.2 cm long. When she left, it was 21.6 cm long. How much had the hairdressers taken off?

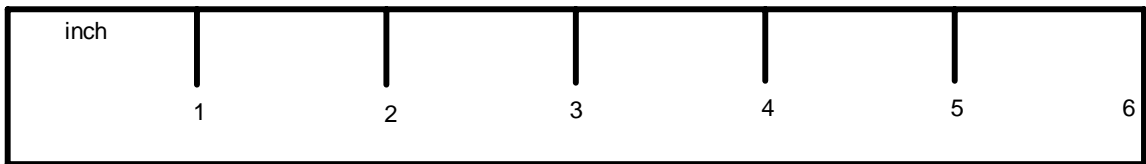
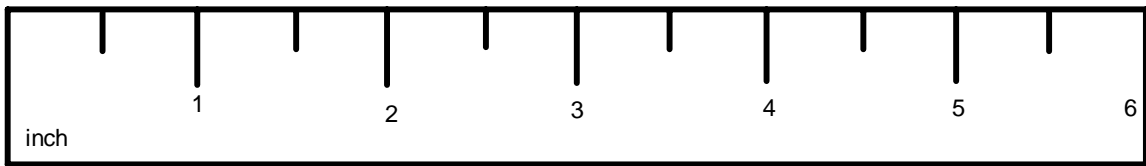
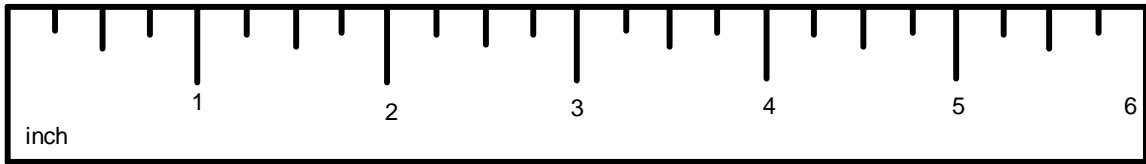
52.6

20. Katie is making a gift for her mom for Mother's Day. She will buy 2.98 feet of pink ribbon, 1.2 feet of white ribbon, and three inches of green ribbon. How many feet of ribbon will she buy in all?

4.43

Unit 4, Activity 8, Ruler

Student rulers to be run off on card stock



Unit 4, Activity 8, Measurement

Name _____

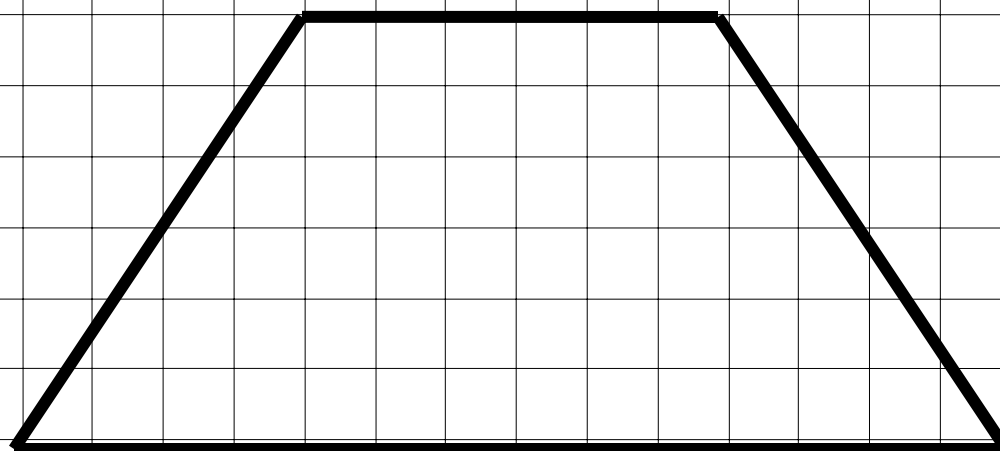
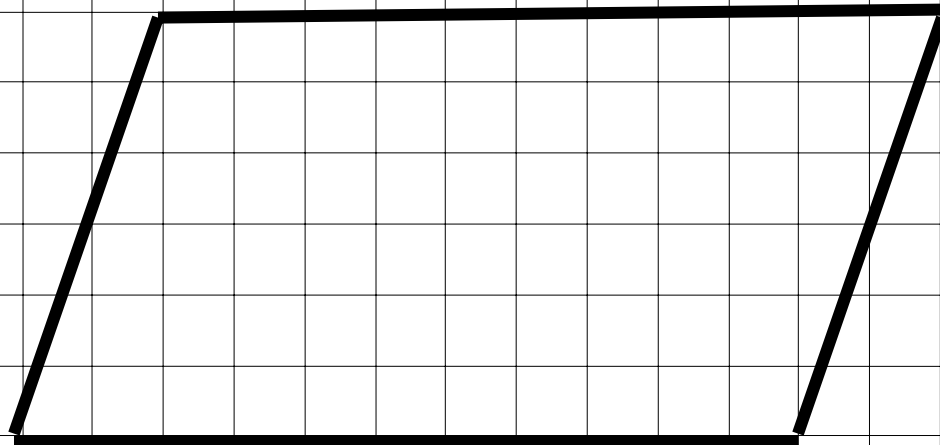
Date _____

Item	Nearest inch		Nearest $\frac{1}{2}$ inch		Nearest $\frac{1}{4}$ inch	
	Estimate	Actual	Estimate	Actual	Estimate	Actual
Width of the calculator						
Large paper clip						
Small paper clip						
Length of a side of a die						
Width of desk						
Length of textbook						

Answer these questions about the measurements with the inch rulers.

1. Which of the columns in the chart above represents the most accurate measurements? Why?
2. Write the measurement for the large paper clip to the nearest inch and the measurement of the small paper clip to the nearest $\frac{1}{2}$ inch. Add these two lengths.
3. Did you record your answer in #2 in inches or $\frac{1}{2}$ inches? Remember: the precision of the length can be only as accurate as the least accurate calibration of the measurement used.

Unit 5, Activity 6, Parallelogram



integrated

iLEAP

Mathematics Reference Sheet—Grade 6

Use the information below to answer questions on the Math test.

U.S. Unit Conversions

1 foot = 12 inches
 1 yard = 3 feet
 1 mile = 5,280 feet

Metric Unit Conversions

1 meter = 1,000 millimeters
 1 meter = 100 centimeters
 1 kilometer = 1,000 meters

1 cup = 8 fluid ounces
 1 pint = 2 cups
 1 quart = 2 pints
 1 gallon = 4 quarts

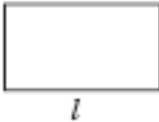
1 liter = 1,000 milliliters

1 kilogram = 1,000 grams

1 pound = 16 ounces
 1 ton = 2,000 pounds

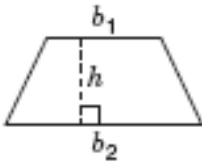
Distance Formula:
 distance = rate • time

Rectangle



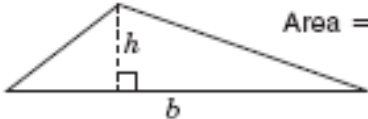
Area = $l \cdot w$
 Perimeter = $2 \cdot (l + w)$

Trapezoid



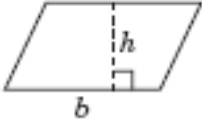
Area = $\frac{1}{2} \cdot h \cdot (b_1 + b_2)$

Triangle



Area = $\frac{1}{2} \cdot b \cdot h$

Parallelogram



Area = $b \cdot h$

Mean: In a collection of data, the sum of all the data divided by the number of data

Median: The middle number or average of the two middle numbers in a collection of data when the data are arranged in order

Mode: The number or numbers that occur most often in a collection of data

Range: The difference between the greatest and the least numbers in a collection of data

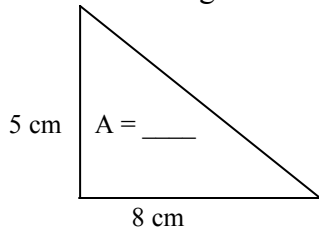
Unit 5, Activity 6, Area and Perimeter

Name _____

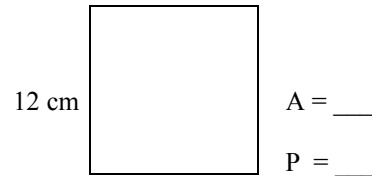
Date _____

Use the formulas on the iLEAP Reference sheet to solve the following problems.

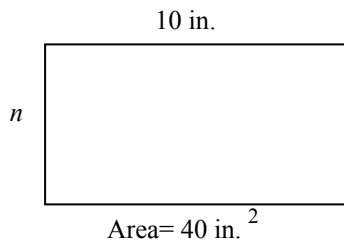
1. Find the missing value.



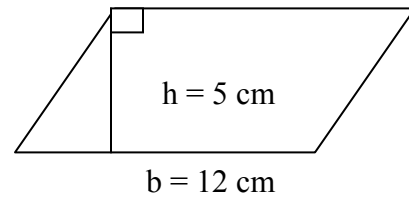
2. Find the perimeter and area of the following square.



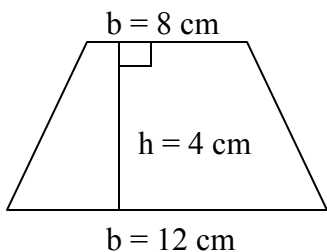
3. Find the value of n in the rectangle.



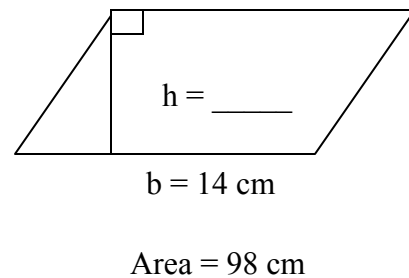
4. Find the area of the parallelogram.



5. Find the area of the trapezoid.



6. Find the height of the parallelogram.



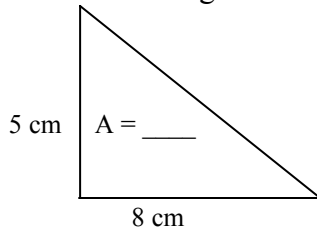
Unit 5, Activity 6, Area and Perimeter with Answers

Name _____

Date _____

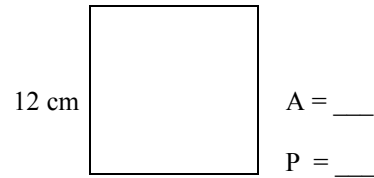
Use the formulas on the iLEAP Reference sheet to solve the following problems.

1. Find the missing value.



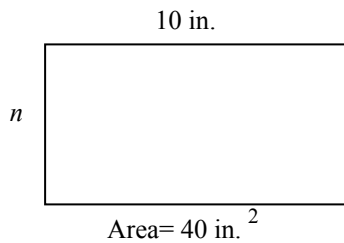
$Area = 20\text{ cm}^2$

2. Find the perimeter and area of the following square.



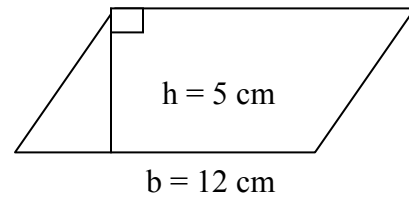
$Area = 144\text{ cm}^2$ $Perimeter = 48\text{ cm}$

3. Find the value of n in the rectangle.



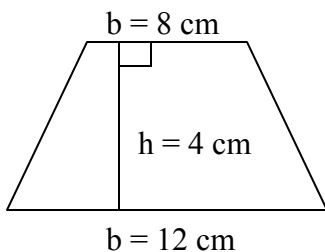
$n = 4\text{ in.}$

4. Find the area of the parallelogram.



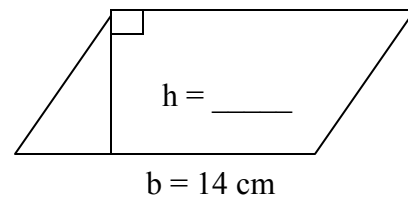
$Area = 60\text{ cm}^2$

5. Find the area of the trapezoid.



$Area = 40\text{ cm}^2$

6. Find the height of the parallelogram.

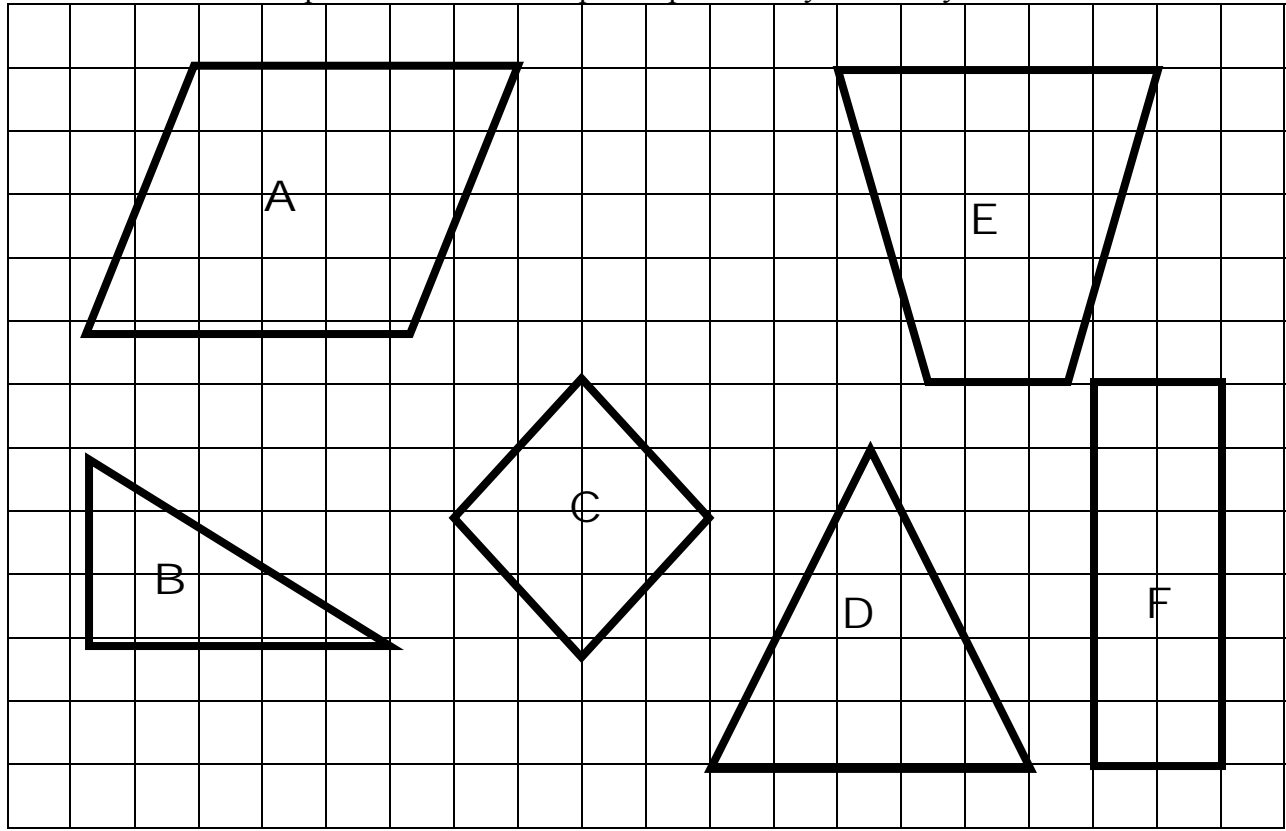


$Area = 98\text{ cm}$

$h = 7\text{ cm}$

Unit 5, Activity 7, 2-D Shapes

Estimate the area and perimeter of each shape. Explain how you found your answers.



A. area = _____

perimeter = _____

B. area = _____

perimeter = _____

C. area = _____

perimeter = _____

D. area = _____

perimeter = _____

E. area = _____

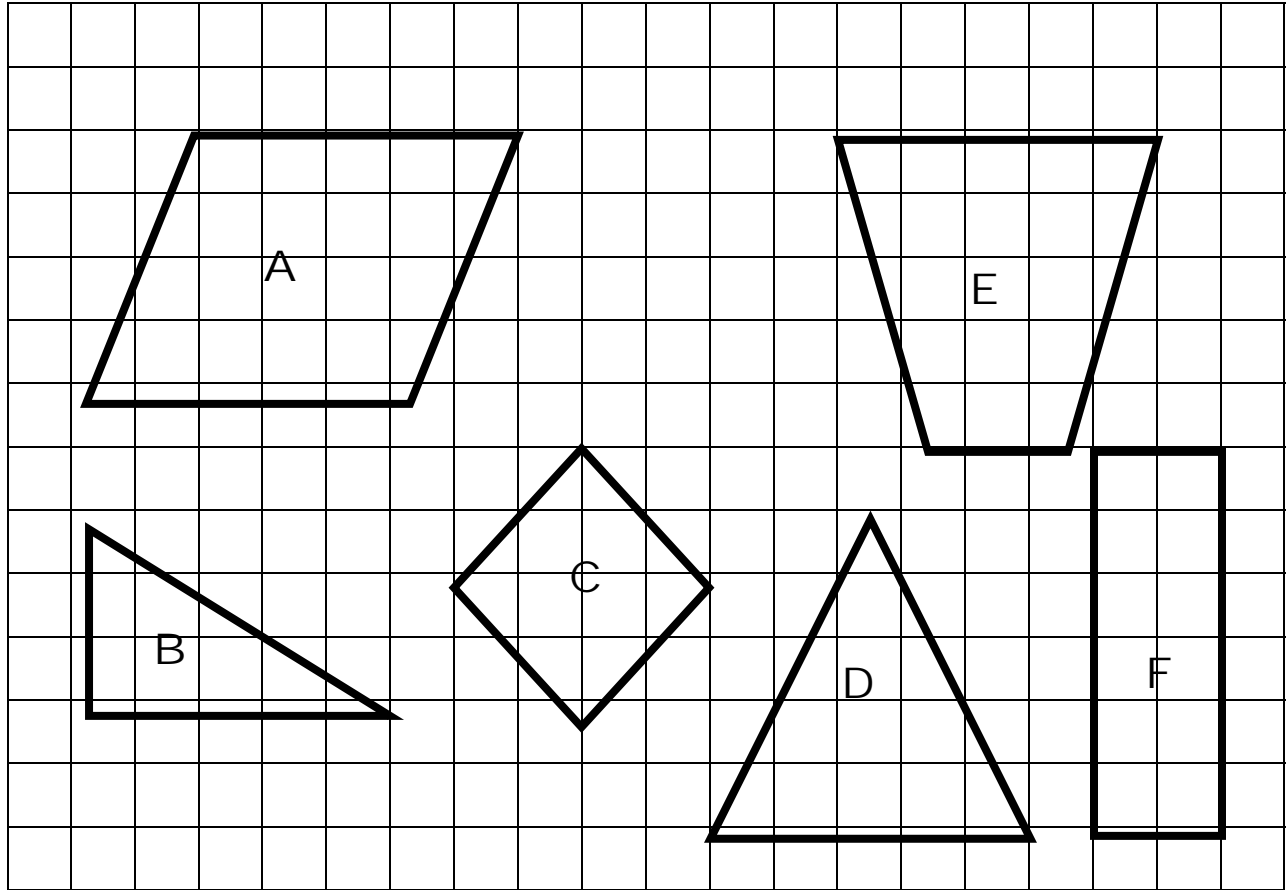
perimeter = _____

F. area = _____

perimeter = _____

Unit 5, Activity 7, 2-D Shapes with Answers

Estimate the area and perimeter of each shape. Explain how you found your answers.



A. area = $\approx 21 \text{ units}^2$ perimeter = $\approx 20 \text{ units}$

B. area = $\approx 7 \text{ units}^2$ perimeter = $\approx 13 \text{ units}$

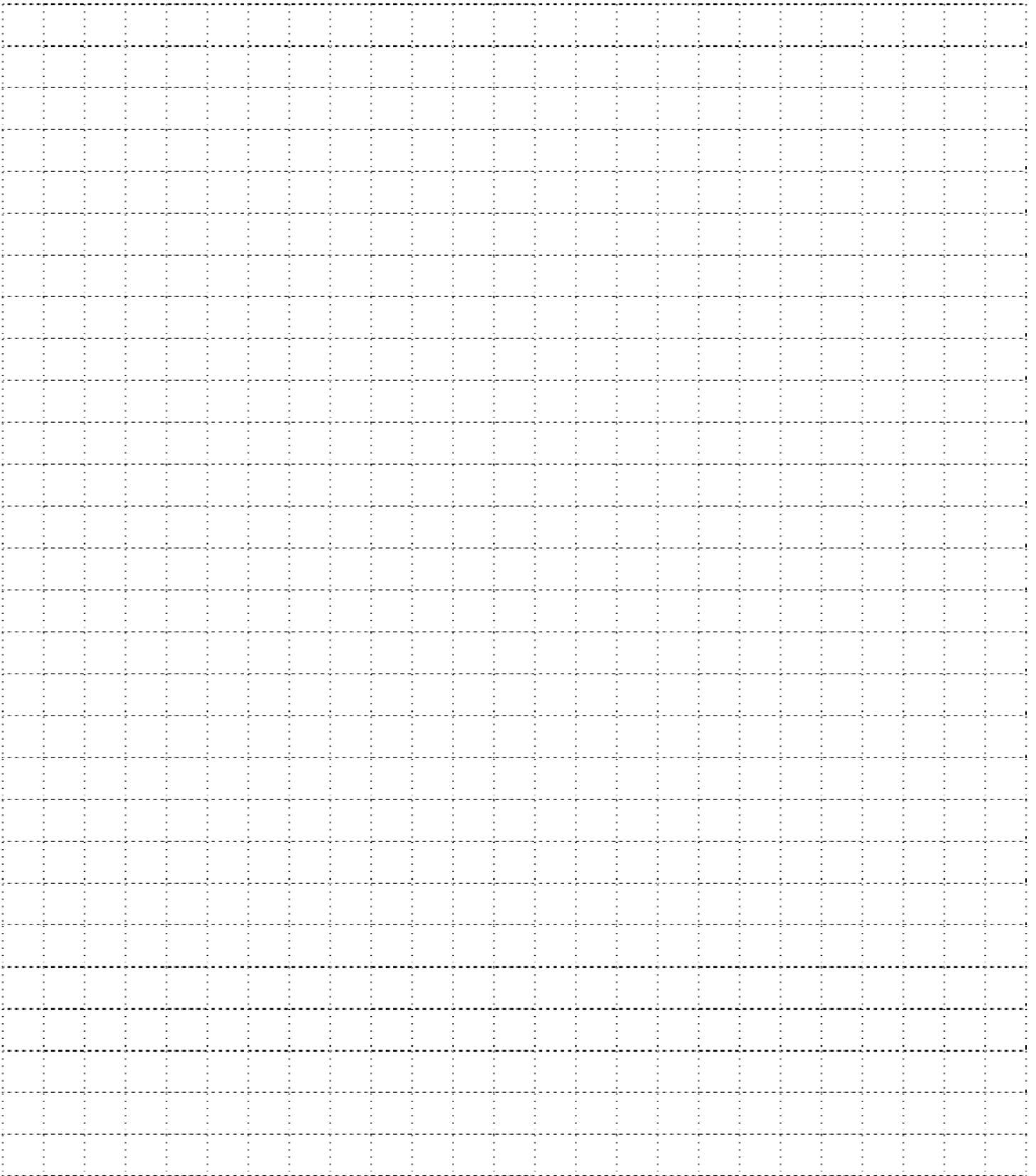
C. area = $\approx 9 \text{ units}^2$ perimeter = $\approx 12 \text{ units}$

D. area = $\approx 13 \text{ units}^2$ perimeter = $\approx 16 \text{ units}$

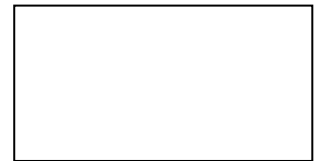
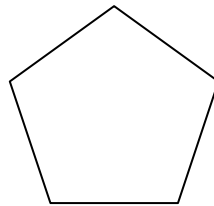
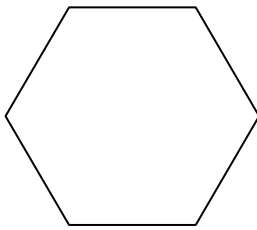
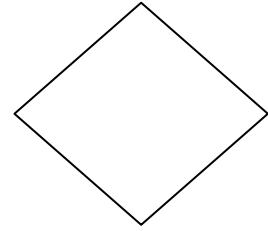
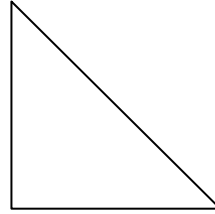
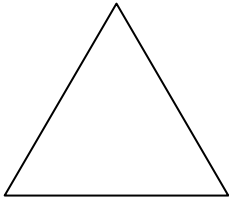
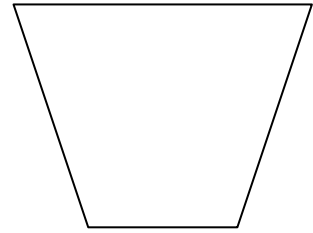
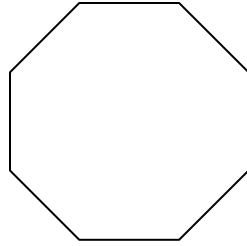
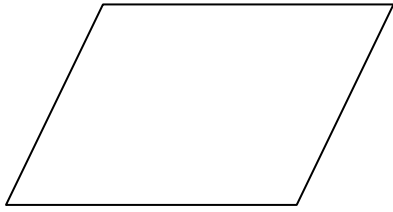
E. area = $\approx 18 \text{ units}^2$ perimeter = $\approx 17 \text{ units}$

F. area = $\approx 12 \text{ units}^2$ perimeter = $\approx 16 \text{ units}$

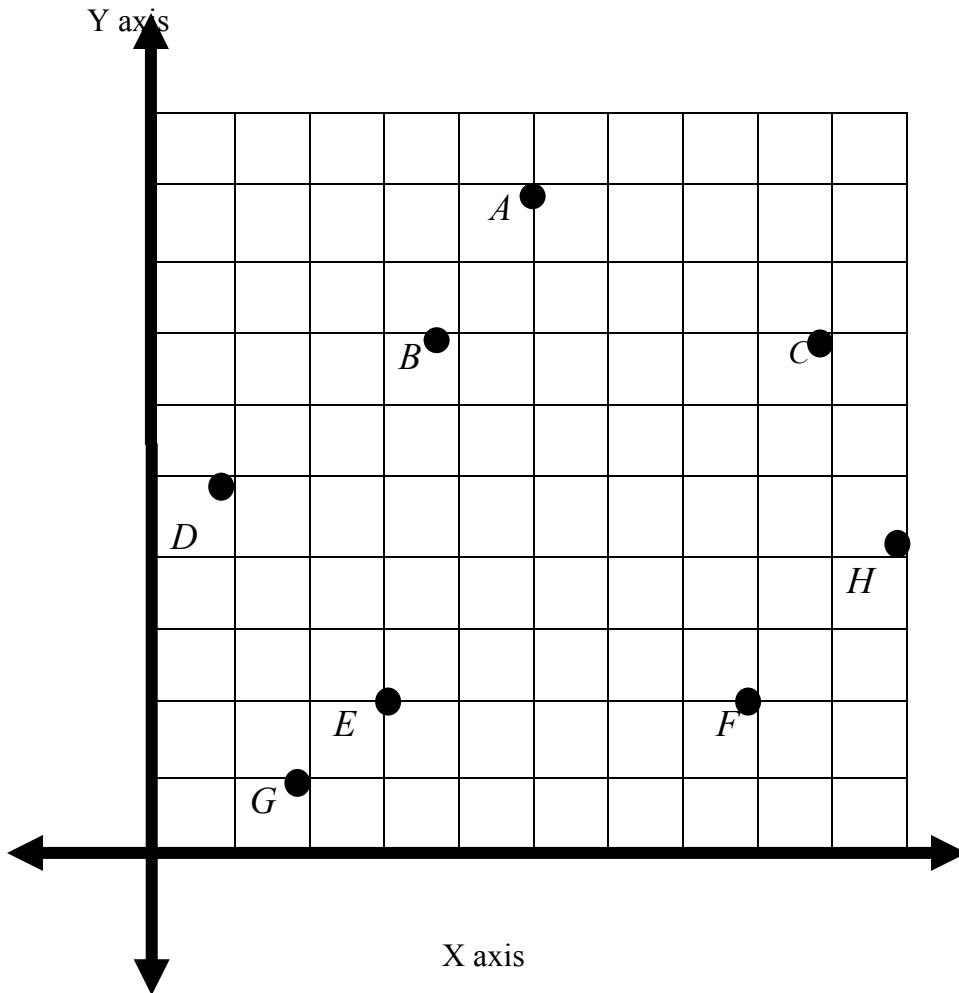
Unit 5, Activities 7 and 14, Grid Paper



Unit 5, Activity 10, Pattern Blocks



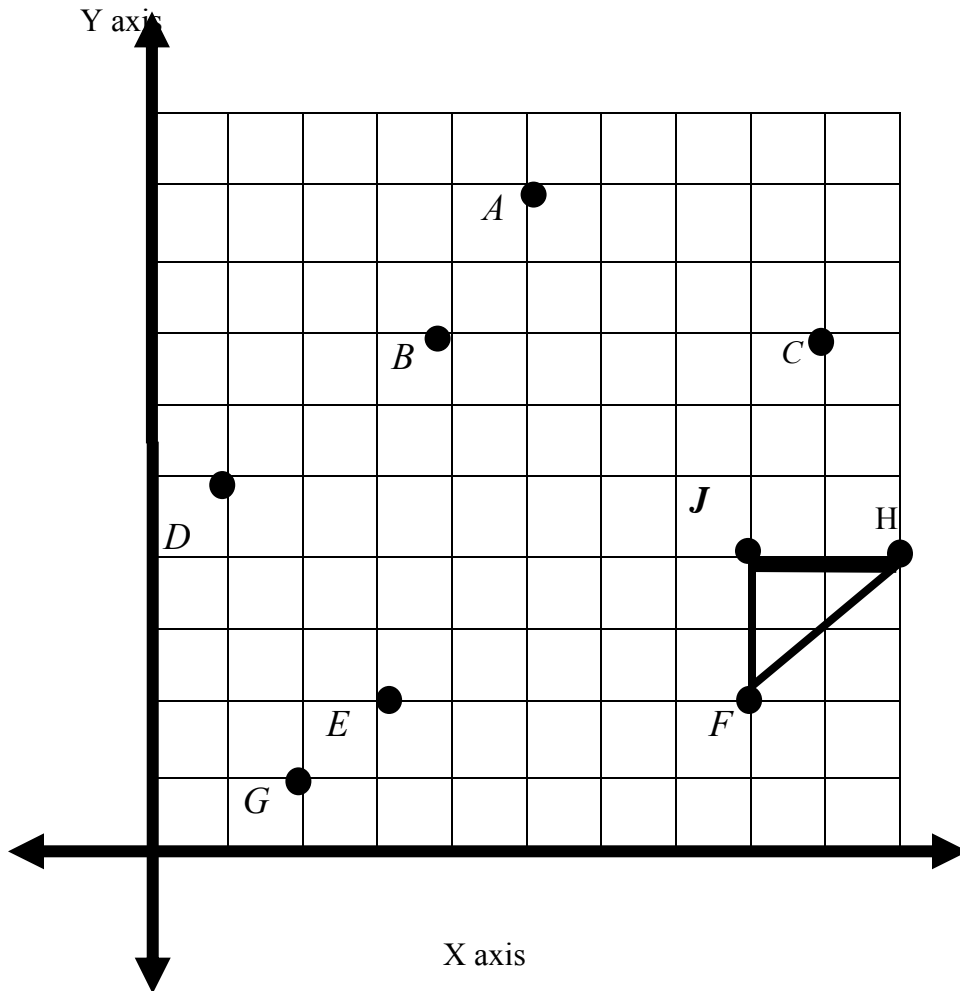
Unit 5, Activity 13, Coordinate Points



Using the above coordinate grid, answer the following questions:

1. What are the coordinates of point D?
2. Do the coordinates (2,5) and (5,2) describe the location of the same point?
3. What are the coordinates of the origin? Why do you think it is called the origin?
4. Plot point (8,4) and label it 'J'. Connect point J to F and H then connect F to H. Name the shape formed and find its area.

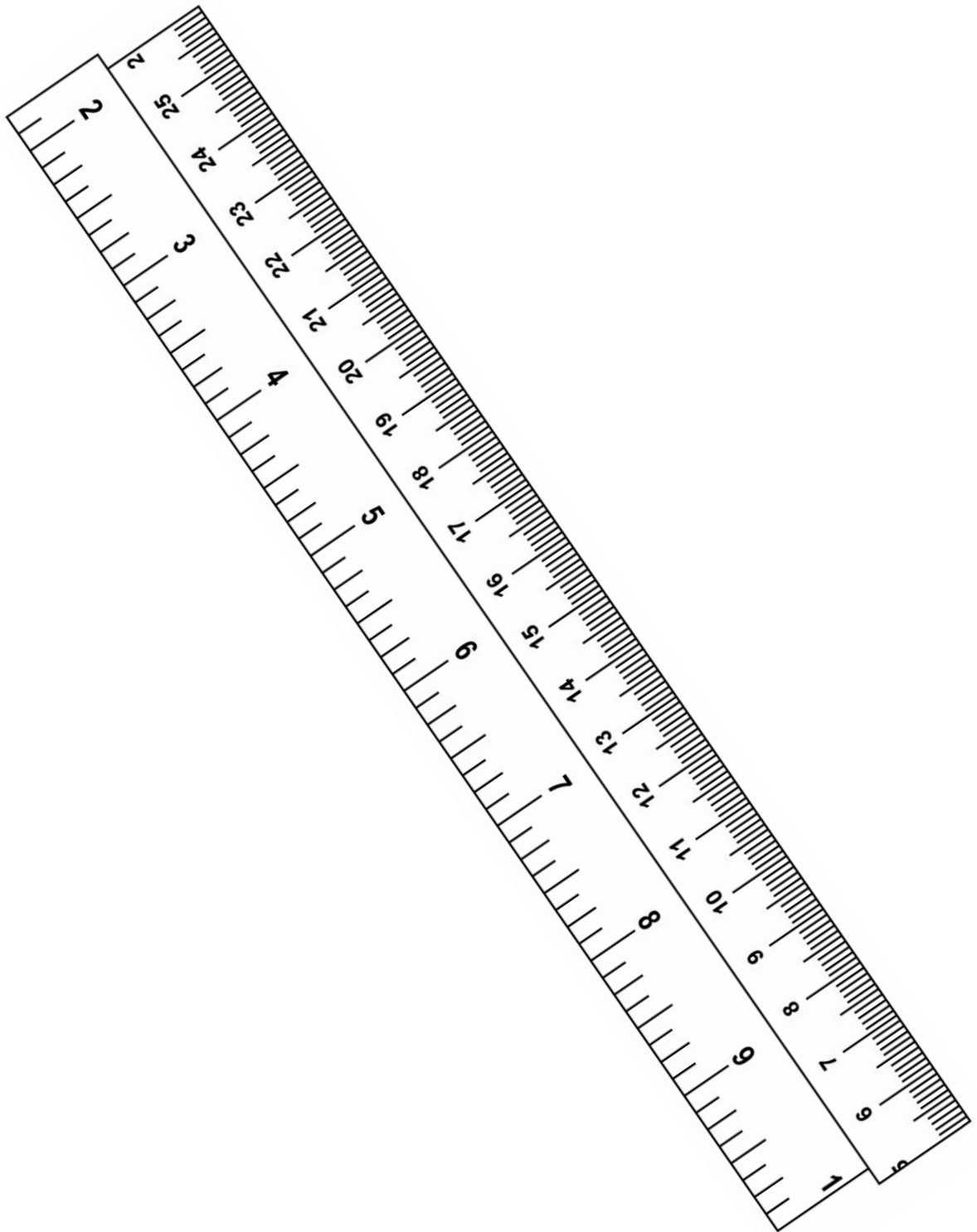
Unit 5, Activity 13, Coordinate Points with Answers



Using the above coordinate grid, answer the following questions:

1. What are the coordinates of point D? $(1, 5)$
2. Do the coordinates $(2,5)$ and $(5,2)$ describe the location of the same point? *No, the first number describes how far to move on the x axis and the second number describes how far to move on the y axis.*
3. What are the coordinates of the origin? Why do you think it is called the origin? $(0,0)$ *because it is the starting point when graphing coordinates.*
4. Plot point $(8,4)$ and label it 'J'. Connect point J to F and H then connect F to H. Name the shape formed and find its area. *The shape is a right triangle.*

Unit 5, Specific Assessment, Activity 5, Broken Ruler

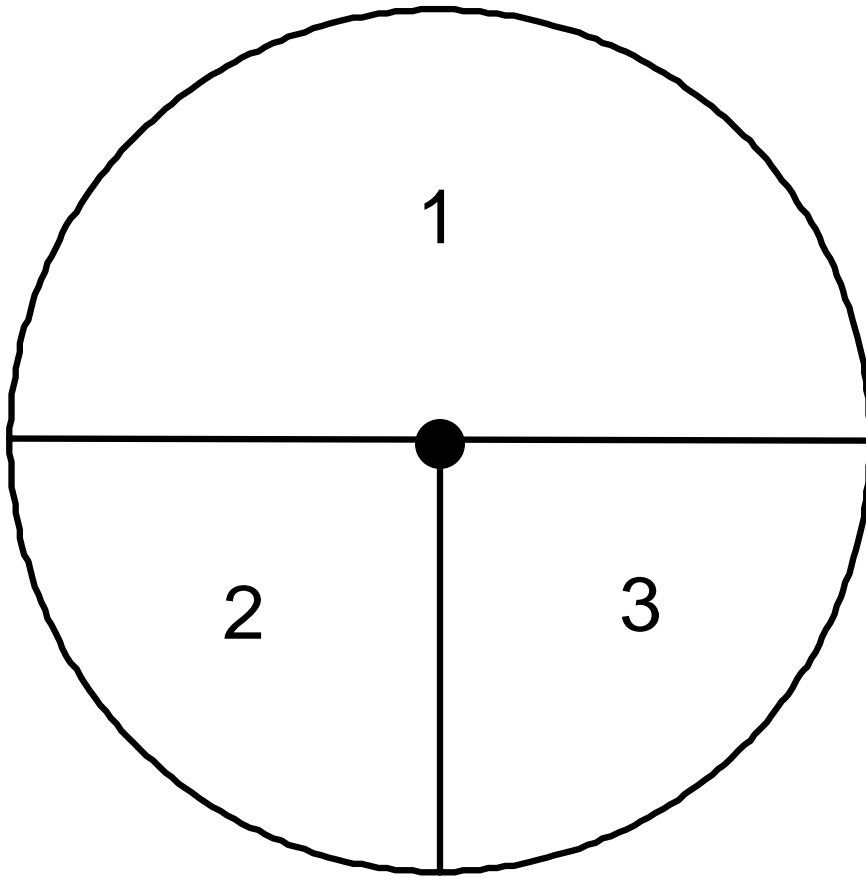


Unit 6, Activity 1, Probability

Name _____ Date _____ Hour _____

Word	+	√	-	Example	Definition
Probability					
Equally Probable					
Tree diagram					
Multiples					
Outcomes					
Ordered pair					
Complementary Events					
Experimental Probability					
Theoretical Probability					

Unit 6, Activity 2, Spinner



Unit 6, Activity 3, Rolling Number Cubes

Name _____ Date _____ Hour _____

Each pair of students will need 2 number cubes. Work with a partner. Record your outcome in the chart below.

# of roll	Roll Outcome	
	1	2
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		

How do these outcomes compare to the list of possible outcomes we discussed earlier?

Unit 6, Activity 4, Tree Diagrams

Name _____ Date _____ Hour _____

1. If a lunch combo is a sandwich and a drink, how many different lunch combos can be made? Use a tree diagram to determine all possible lunches.

Lunch Menu

Sandwiches

Turkey
Roast Beef

Drinks

Coke
Sprite
Diet Coke
Dr Pepper

2. A restaurant offers a dessert special. You can get one scoop of ice cream, a topping, and a cone for a reduced price. Use the menu below. How many different dessert specials can you order? Make a tree diagram to show your choices.

Flavors

Vanilla
Chocolate
Strawberry
Peach

Toppings

Nuts
Sprinkles
Cherries

Cones

Sugar
Waffle

Unit 6, Activity 4, Tree Diagrams with Answers

1. If a lunch combo is a sandwich and a drink, how many different lunch combos can be made? Use a tree diagram to determine all possible lunches.

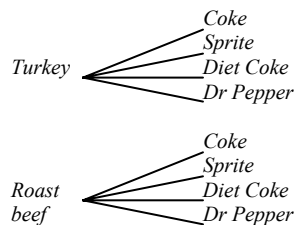
Lunch Menu

Sandwiches

Turkey
Roast Beef

Drinks

Coke
Sprite
Diet Coke
Dr Pepper



8 lunch combos

2. A restaurant offers a dessert special. You can get one scoop of ice cream, a topping, and a cone for a reduced price. How many different dessert specials can you order? Make a tree diagram to show your choices.

Flavors

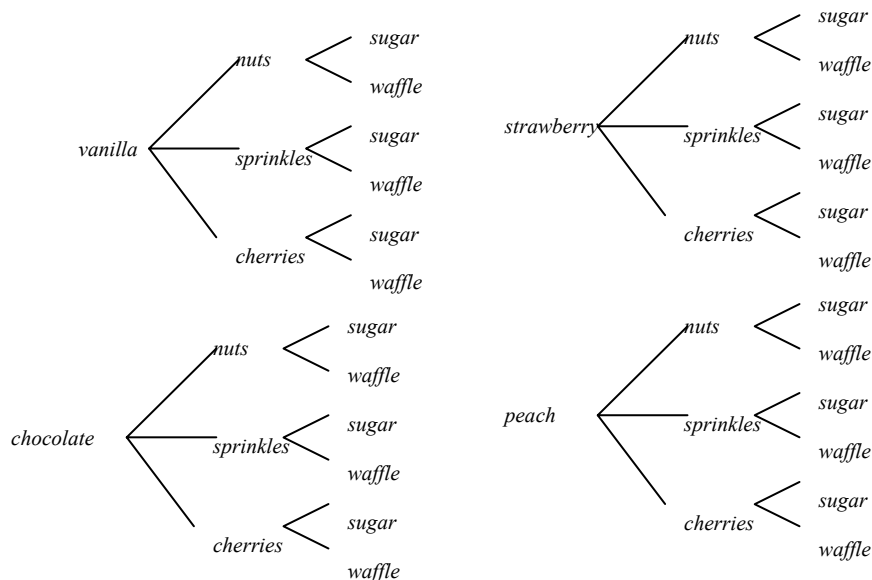
Vanilla
Chocolate
Strawberry
Peach

Toppings

Nuts
Sprinkles
Cherries

Cones

Sugar
Waffle



24 dessert specials

Unit 6, Activity 5, Multiples Table

Name _____ Date _____ Hour _____

Use your numbers 1-100 to record your results by placing each number in the correct column.
(you must use all of your numbers 1-100)

Multiple of 8	Multiple of 6	Not a multiple of 6	Multiple of 6 and 8

1. What is the probability of getting a multiple of 8? What is the probability of not getting a multiple of 8?
2. What is the probability of getting a multiple of 6? What is the probability of not getting a multiple of 6?
3. What is the probability of getting a multiple of 6 and 8? What is the probability of not getting a multiple of 6 and 8?

Unit 6, Activity 5, Multiples Table with Answers

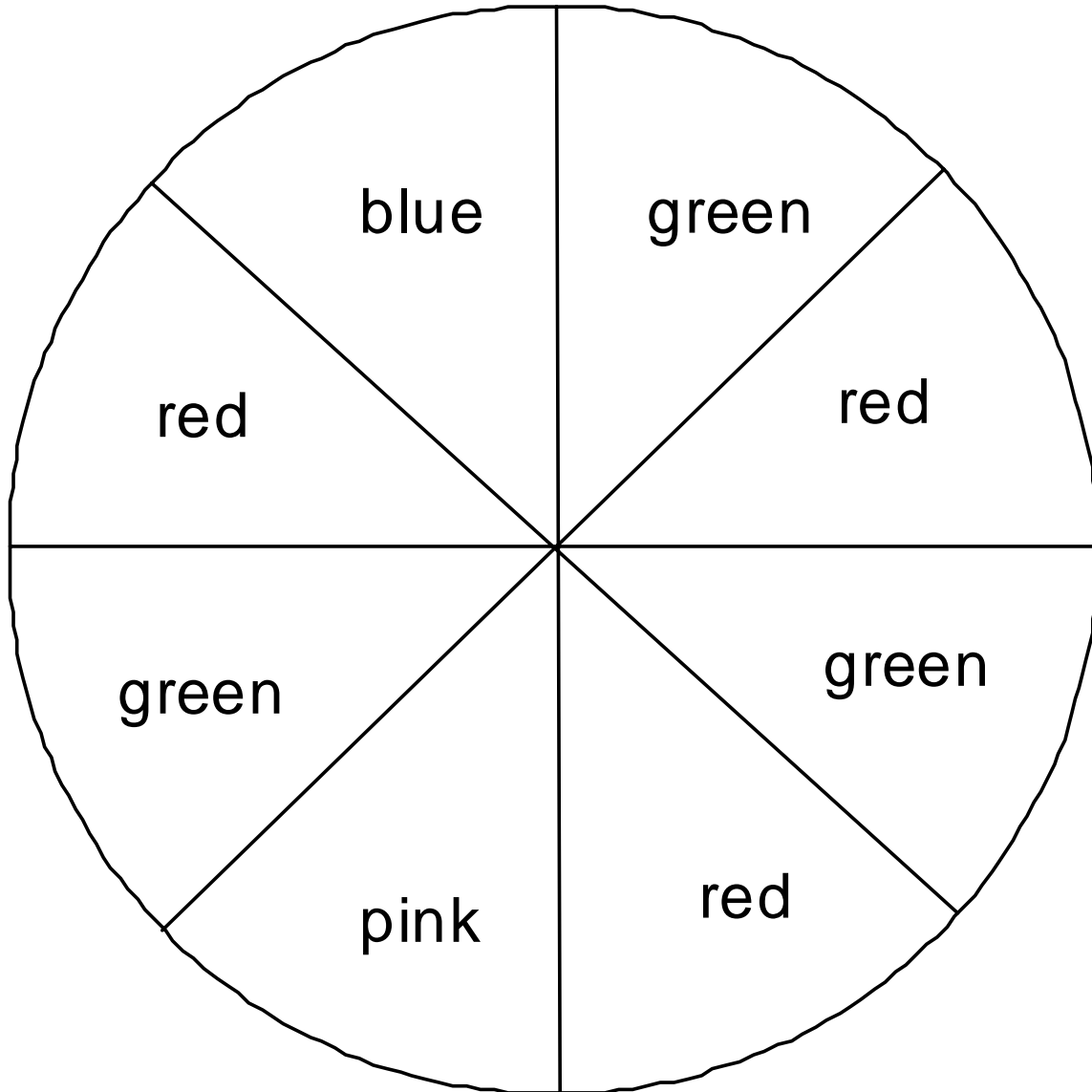
Use your number 1-100 to record your results by placing each number in the correct column.
(you must use all of your numbers 1-100)

Multiple of 8	Multiple of 6	Not a multiple of 6	Multiple of 6 and 8
8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 85, 86, 87, 88, 89, 91, 92, 93, 94, 95, 97, 98, 99, 100	24, 48, 72, 96

1. What is the probability of getting a multiple of 8? What is the probability of not getting a multiple of 8? $12/100$ or $3/25$, $78/100$ or $22/25$
2. What is the probability of getting a multiple of 6? What is the probability of not getting a multiple of 6? $16/100$ or $4/25$, $84/100$ or $21/25$
3. What is the probability of getting a multiple of 6 and 8? What is the probability of not getting a multiple of 6 and 8? $4/100$ or $1/25$, $96/100$ or $24/25$

Unit 6, Activity 6, Color Spinner

Directions: Place one end of your paper clip at the center of the circle. Place your pencil point in the paper clip at the center of the circle. Hold your pencil firmly and spin your paper clip.



Unit 6, Activity 6, Spinner Probability

Name _____ Date _____ Hour _____

1. What is the probability of spinning a blue? Not spinning a blue?
2. What is the probability of spinning a red? Not spinning a red?
3. What is the probability of spinning a green? Not spinning a green?
4. What is the probability of spinning a pink? Not spinning a pink?
5. Which color is most likely to spin? Explain why.
6. Which color is least likely to spin? Explain why.
7. Is this a fair spinner? Why or why not. If it's not fair what would you do to make it a fair spinner?

Unit 6, Activity 6, Spinner Probability with Answers

Name _____ Date _____ Hour _____

1. What is the probability of spinning a blue? Not spinning a blue?
 $1/8$, $7/8$
2. What is the probability of spinning a red? Not spinning a red?
 $3/8$, $5/8$
3. What is the probability of spinning a green? Not spinning a green?
 $3/8$, $5/8$
4. What is the probability of spinning a pink? Not spinning a pink?
 $1/8$, $7/8$
5. Which color is most likely to spin? Explain why.
Red or green because there are 3 red and 3 green spaces
6. Which color is least likely to spin? Explain why.
Blue or pink because there is only 1 blue and 1 pink space
7. Is this a fair spinner? Why or why not. If it's not fair what would you do to make it a fair spinner?
No, it is not fair because there are not an equal number of spaces for each color. To make the spinner fair, each color should have 2 spaces.

Unit 7, Activity 1, Dividing

Name _____ Date _____

1. A ream of paper contains 500 sheets. If each student needs 20 sheets of paper to make a recording book, how many books can be made from a ream of paper?

2. There are 240 students in the sixth grade at W.W. Lewis Middle School. The sixth grade teachers have 2880 disks. If each of the students gets the same number of disks, how many disks will each student receive?

3. Mrs. Marcantel cut down an apple tree in her backyard and had a giveaway celebration to get rid of 336 apples. She offered 24 apples to each person who asked. How many people could get free apples?

4. Mrs. Karam's math class sold 1620 cookies at the school's annual bake sale. The cookies were packaged to sell in boxes of three dozen cookies. How many boxes of cookies did they sell? Explain your thinking.

5. A factory has 5640 cassettes that will be packed into 47 cartons. How many cassettes will be placed in each carton?

6. Betty has 36 math books. The total number of pages in all of the math books is 4500 pages. How many pages are in each book? Explain your thinking.

Unit 7, Activity 1, Dividing with Answers

Name _____ Date _____

1. A ream of paper contains 500 sheets. If each student needs 20 sheets of paper to make a recording book, how many books can be made from a ream of paper?

25 books can be made

2. There are 240 students in the sixth grade at W.W. Lewis Middle School. The sixth grade teachers have 2880 disks. If each of the students gets the same number of disks, how many disks will each student receive?

each student gets 12 computer disks

3. Mrs. Marcantel cut down an apple tree in her backyard and had a giveaway celebration to get rid of 336 apples. She offered 24 apples to each person who asked. How many people could get free apples?

14 people got free apples

4. Mrs. Karam's math class sold 1620 cookies at the school's annual bake sale. The cookies were packaged to sell in boxes of three dozen cookies. How many boxes of cookies did they sell? Explain your thinking.

45 boxes of cookies were sold

5. A factory has 5640 cassettes that will be packed into 47 cartons. How many cassettes will be placed in each carton?

120 cassettes in each carton

6. Betty has 36 math books. The total number of pages in all of the math books is 4500 pages. How many pages are in each book? Explain your thinking.

125 pages in each book

Unit 7, Activity 2, Remainder Game

The Remainder Game

1 2 3 4 5 6 7 8 9 10

10 11 12 13 14 15 16 17 18 19 20

STARTING #	Division sentence/problem Example $12 \div 5 = 2 \text{ R } 2$	Player's Name/score
100		
PLAYER 1 Total Score:	PLAYER 2 Total Score :	

Unit 7, Activity 3, Remainders

Name _____ Date _____

Show all your work for each situation below. Express the remainder if any, in a variety of ways.

1. Kevin made 2314 birthday cards for the nursing home. If he puts 24 cards in each box, how many boxes of birthday cards does he have and how many will he have left over?

2. The animal shelter placed their stray dogs in a large pen with 12 dogs in each pen. There are 1218 stray dogs at the animal shelter. How many pens does the animal shelter have to house their stray dogs?

3. Mrs. Landry gave 72 of her math students crayons to complete their math project. She has 1024 crayons. If each student gets the same number of crayons, how many crayons will each student get?

4. The Church Bazaar sold 255 pies; each pie was cut in eight pieces. If 816 people each ate the same amount of pie, how many pieces of pie did each person get?

5. Mr. Guillory's electric bill showed that he used 2625 kilowatts for the month of August. How many kilowatts did he use each day?

Unit 7, Activity 3, Remainders with Answers

Name _____ Date _____

Show all your work for each situation below. Express the remainder if any, in a variety of ways.

1. Kevin made 2314 birthday cards for the nursing home. If he puts 24 cards in each box, how many boxes of birthday cards does he have and how many will he have left over?

96 boxes of cards and 10 cards left over

2. The animal shelter placed their stray dogs in a large pen with 12 dogs in each pen. There are 1218 stray dogs at the animal shelter. How many pens does the animal shelter have to house their stray dogs?

102 pens (the last pen will have 6 dogs)

3. Mrs. Landry gave 72 of her math students crayons to complete their math project. She has 1024 crayons. If each student gets the same number of crayons, how many crayons will each student get?

Each student will get 14 crayons and the teacher will have 16 left over.

4. The Church Bazaar sold 255 pies; each pie was cut in eight pieces. If 816 people each ate the same amount of pie, how many pieces of pie did each person get?

Each person ate 2.5 pieces of pie

5. Mr. Guillory's electric bill showed that he used 2625 kilowatts for the month of August. How many kilowatts did he use each day?

84.35 kilowatts per day

Unit 7, Activity 4, Division

Name _____

Date _____

1. You are about to go on a field trip with the entire school. There are 1438 teachers, students, and administrators in your building. Everyone will be traveling by school bus. If each bus (excluding the bus driver) can seat a maximum of 45 people, how many buses will you need to transport everyone? Explain your answer.

2. Mrs. Morris is preparing for an open house for all the 6th grade students in the school district. The RSVP slips from parents have been counted, and 5892 people will be coming. How many tables should be set up for the open house if 52 people can sit around each large table? Explain your answer.

3. The carnival has 1539 prizes that are distributed in bags with the 16 prizes in each bag. How many prize bags can be made? Explain your thinking.

4. One thousand twenty-nine mini-pizzas were delivered to school. If there were ninety-eight 6th grade students in Mrs. Simmons Math class, how much pizza will each student receive?

5. One thousand ninety-seven scouts are going on a camping trip. Each tent will sleep no more than 24 scouts. How many tents will they need?

Unit 7, Activity 4, Division with Answers

Name _____

Date _____

1. You are about to go on a field trip with the entire school. There are 1438 teachers, students, and administrators in your building. Everyone will be traveling by school bus. If each bus (excluding the bus driver) can seat a maximum of 45 people, how many buses will you need to transport everyone? Explain your answer.

1438 people \div 45 people = 31.96 groups of 45 people. You will need at least 32 buses to seat 1438 people.

2. Mrs. Morris is preparing for an open house for all the 6th grade students in the school district. The RSVP slips from parents have been counted, and 5892 people will be coming. How many tables should be set up for the open house if 52 people can sit around each large table? Explain your answer.

5892 people \div 52 people = 113.31 groups of 52 people. You will need a minimum of 114 tables to seat everyone.

3. The carnival has 1539 prizes that are distributed in bags with the 16 prizes in each bag. How many prize bags can be made? Explain your thinking.

1539 prizes \div 16 prizes = 96.19 groups of 16 prizes. You will only be able to make 96 prize bags.

4. One thousand twenty-nine mini-pizzas were delivered to school. If there were ninety-eight 6th grade students in Mrs. Simmons Math class, how much pizza will each student receive?

1032 pizzas \div 96 students = 10.75 pizzas for each student. 10.75 pizzas or 10 $\frac{3}{4}$ pizzas for every student. Pizzas can be divided evenly.

5. One thousand ninety-seven scouts are going on a camping trip. Each tent will sleep no more than 24 scouts. How many tents will they need?

1097 scouts \div 24 scouts = 45.71 groups of 24 scouts. You will need at least 46 tents.

Unit 7, Activity 5, I Have Who Has

<p>I have $12\frac{2}{3}$</p> <p>Who has $84 \div 24$?</p>	<p>I have 3.5</p> <p>Who has the fractional equivalent of 3.5?</p>
<p>I have $3\frac{1}{2}$</p> <p>Who has $323 \div 68$?</p>	<p>I have 4.75</p> <p>Who has the fractional equivalent of 4.75?</p>
<p>I have $4\frac{3}{4}$</p> <p>Who has three times $4\frac{3}{4}$?</p>	<p>I have I have $14\frac{1}{4}$</p> <p>Who has $125 \div 25$?</p>
<p>I have 5</p> <p>Who has $2000 \div 10$?</p>	<p>I have 200</p> <p>Who has $468 \div 10$?</p>

Unit 7, Activity 4, Division with Answers

<p>I have 46.8 Who has $5640 \div 23$?</p>	<p>I have 245 with remainder of 5 Who has $4050 \div 50$?</p>
<p>I have 81 Who has $3015 \div 25$?</p>	<p>I have 120.6 Who has twice 120.6?</p>
<p>I have 241.2 Who has $209 \div 8$?</p>	<p>I have 26.125 Who has the fraction equivalent of 26.125?</p>
<p>I have $26\frac{1}{8}$ Who has $92 \div 6$?</p>	<p>I have 15.333 Who has the fraction equivalent of 15.333?</p>

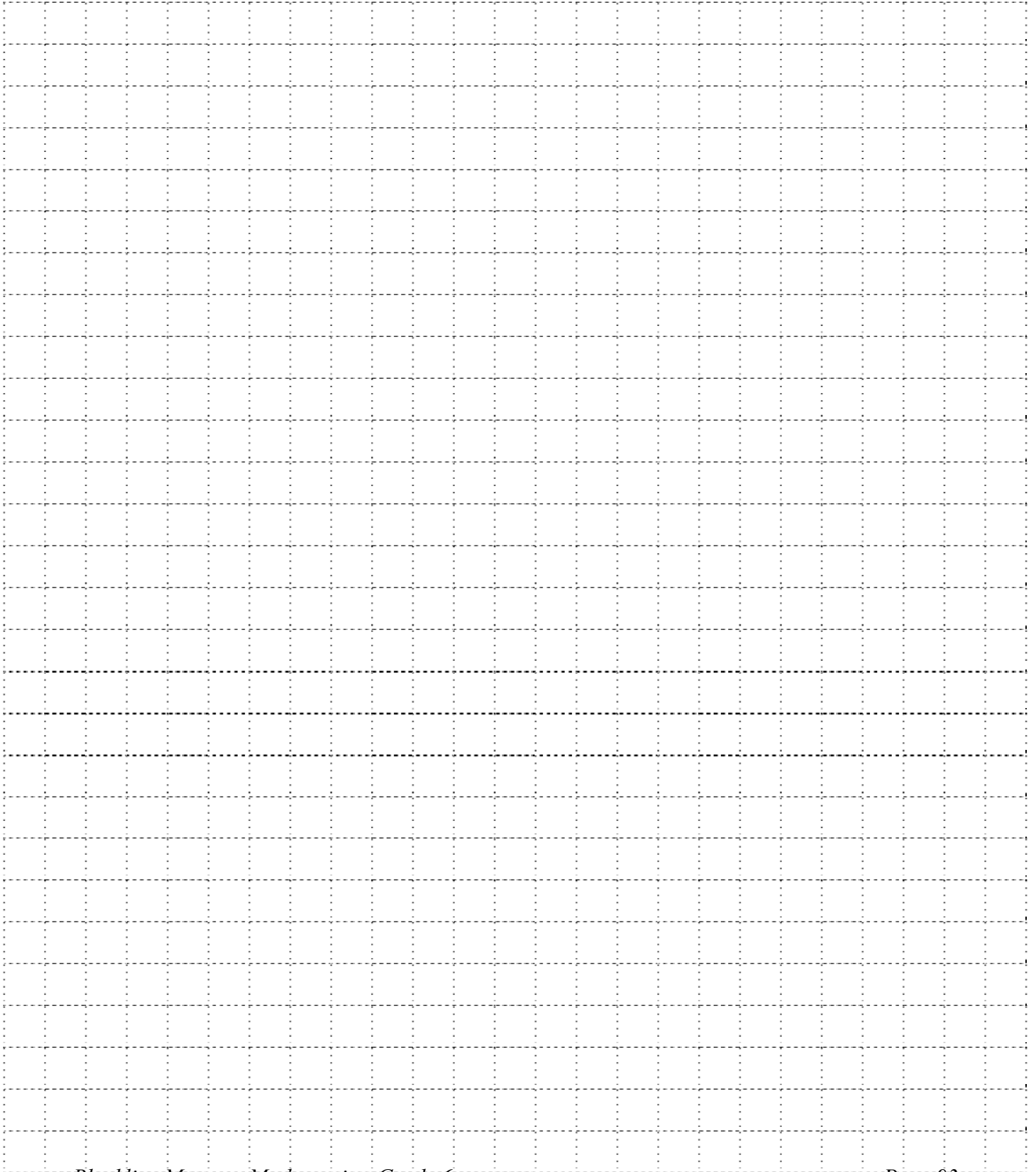
Unit 7, Activity 4, Division with Answers

<p>I have $15\frac{1}{3}$</p> <p>Who has $1188 \div 90$?</p>	<p>I have $13\frac{1}{5}$</p> <p>Who has the decimal equivalent of $13\frac{1}{5}$?</p>
<p>I have 13.2</p> <p>Who has $275 \div 8$?</p>	<p>I have 3.375</p> <p>Who has the fraction equivalent of 3.375?</p>
<p>I have $3\frac{3}{8}$</p> <p>Who has twice $3\frac{3}{8}$?</p>	<p>I have $6\frac{3}{4}$</p> <p>Who has $6925 \div 63$?</p>
<p>I have 109.92</p> <p>Who has 109.92 expressed as a mixed number?</p>	<p>I have $109\frac{23}{25}$</p> <p>Who has $8597 \div 37$?</p>

Unit 7, Activity 4, Division with Answers

<p>I have 232 remainder 13 Who has $5288 \div 69$?</p>	<p>I have 76.64 Who has $6666 \div 22$?</p>
<p>I have 303 Who has $6565 \div 20$?</p>	<p>I have 328.25 Who has the mixed number representing 328.25?</p>
<p>I have $328\frac{1}{4}$ Who has $633 \div 50$?</p>	<p>I have $12.\overline{6}$ Who has the fraction equivalent of $12.\overline{6}$?</p>

Unit 8, Activity 1, Graph Paper



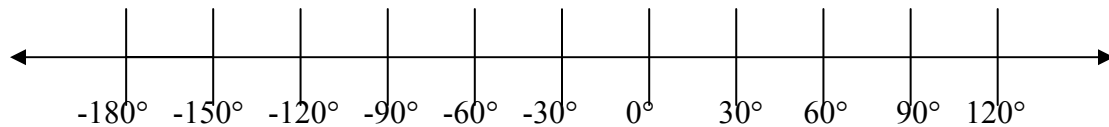
Unit 8, Activity 2, Planets

Name _____ Date _____

The average surface temperatures of Jupiter, Mars, Earth and the moon are shown in the table.

Name	Average Surface Temperature (F°)
Jupiter	-162 F°
Moon	-10 F°
Mars	-81 F°
Earth	59 F°

1. Plot each temperature on the number line.



2. Write two inequalities using $<$ or $>$ symbols, comparing the surface temperatures.

3. Would the temperature on Neptune be $>$ or $<$ the temperature on Jupiter? Explain.

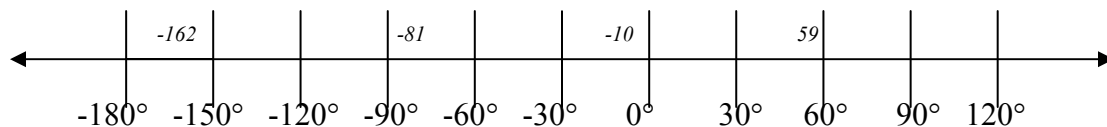
Unit 8, Activity 2, Planets with Answers

Name _____ Date _____

The average surface temperatures of Jupiter, Mars, Earth and the moon are shown in the table.

Name	Average Surface Temperature (F°)
Jupiter	-162 F°
Moon	-10 F°
Mars	-81 F°
Earth	59 F°

1. Plot each temperature on the number line.



2. Write two inequalities using $<$ or $>$ symbols, comparing the surface temperatures.

Answers will vary

3. Would the temperature on Neptune be $>$ or $<$ the temperature on Jupiter?
Explain.

The temperature on Neptune would be less than the temperature on Jupiter because Neptune is further from the sun than Jupiter.

Unit 8, Activity 4, Concentration

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 divided by 3	$\frac{4x}{3}$
2 raised to a power of 'x'	2^x	A number 'x' increased by 12	$x + 12$

Unit 8, Activity 4, Concentration

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 '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	$3x - 4$

Unit 8, Activity 4, Solutions

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

Unit 8, Activity 5, Solve It!

Name _____

Name _____

Date _____

Date _____

Problem 1: $2x + 5$ Number Rolled: _____ Solution:	Problem 1: $4x + 3$ Number Rolled: _____ Solution:
Problem 2: $\frac{1}{2}y + 7$ Number Rolled: _____ Solution:	Problem 2: $\frac{1}{4}x + 5$ Number Rolled: _____ Solution:
Problem 3: $2 + 3n$ Number Rolled: _____ Solution:	Problem 3: $12 + 5n$ Number Rolled: _____ Solution:
Problem 4: $2.5 + 0.5z$ Number Rolled: _____ Solution:	Problem 4: $1.4x + 0.5$ Number Rolled: _____ Solution:
Problem 5: $12x - 8$ Number Rolled: _____ Solution:	Problem 5: $11x - 6$ Number Rolled: _____ Solution:

Unit 8, Activity 6, Two-Step

Name _____

Date _____

1. Jack had \$24 to spend on seven pens. After buying them he had \$10. How much did each pen cost?

Equation:

Solution:

2. You bought a book for \$15 and four bookmarks. You spent a total of \$25. How much did each bookmark cost?

Equation:

Solution:

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

Equation:

Solution:

4. If Randy subtracts 3 times his number from 25, he gets 4. What is Randy's number?

Equation:

Solution:

5. Liz 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 Liz's allowance?

Equation:

Solution:

Unit 8, Activity 6, Two-Step with Answers

1. Jack had \$24 to spend on seven pens. After buying them he had \$10. How much did each pen cost?

Equation: $7p + 10 = 24$

Solution: $p = 2$

2. You bought a book for \$15 and four bookmarks. You spent a total of \$25. How much did each bookmark cost?

Equation: $15 + 4b = 25$

Solution: $b = 2.50$

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

Equation: $b \div 2 + 15 = 35$

Solution: $b = 40$

4. If Randy subtracts 3 times his number from 25, he gets 4. What is Randy's number?

Equation: $25 - 3n = 4$

Solution: $n = 7$

5. Liz 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 Liz's allowance?

Equation: $10 + 4w = 30$

Solution: $w = 5$

Unit 8, Activity 9, Input-Output Tables

Name _____ Date _____

Complete the input/output tables below with the values 1 – 10. Find the differences between the successive outputs. Is the difference constant or varied? Plot your values on the grid.

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 9, Input-Output Tables with Answers

Name _____ Date _____

Complete the input/output tables below with the values 1 – 10. Find the differences between the successive outputs. Is the difference constant or varied? Plot your values on the grid.

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.

Constant

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.

Varied

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.

Constant