Winter Break Study Packet

Name: _____   Period: _____

1. List all the factors for the number 60.

    a. 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

    b. 1, 2, 4, 5, 10, 20

    c. 1, 2, 3, 4, 7, 14, 15, 20, 30, 60

    d. 1, 2, 3, 4, 5, 10

2. Mrs. Wu wrote the following sets of numbers on the board:

Set A	4	8	12	16	20	24
Set B	3	5	7	9	11	13
Set C	2	3	5	7	11	17
Set D	3	6	9	12	15	18

Which set of numbers is made up of only prime numbers?

    a. Set A

    b. Set B

    c. Set C

    d. Set D

3. Find the common denominator (Least Common multiple) for the following fractions.

$$\frac{5}{6} \qquad\qquad \frac{4}{5} \qquad\qquad \frac{3}{4}$$

4. Alejandro and Jean are distributing erasers and pencils to the art class. There are 40 erasers and 25 pencils. Each student receives the same number of pencils and the same number of erasers, and no supplies are left over. What is the greatest number of students in the class?

a. 10 students

b. 200 students

c. 65 students

d. 5 students

5. Zola made this factor tree to find the prime factorization of 120.
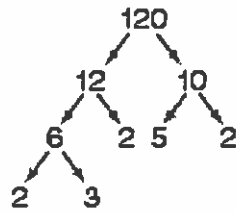
What does the tree show as the prime factorization of 120?

a.   2 x 3 x 5

b.   2 x 2 x 3 x 5

c.   2 x 2 x 2 x 3 x 5

d.   2 x 2 x 2 x 3 x 3 x 5

6. Kirby and Cynthia each ate the same amount of their own pizza. Kirby ate $\dfrac{4}{12}$ of his pizza.

What fraction of her pizza could Cynthia have eaten?

    a. $\dfrac{4}{10}$

    b. $\dfrac{3}{9}$

    c. $\dfrac{8}{12}$

    d. $\dfrac{2}{3}$

7. Fred is converting mixed fractions to improper fractions and plotting them on this number line.

Which number should he use to name the point Y?

a. $2\dfrac{2}{3}$

b. $3\dfrac{1}{3}$

c. $3\dfrac{2}{3}$

d. 4

2. Temperatures (in degrees Fahrenheit) in Portland, Maine during the one week in January:

$$-5°, 0°, 15°, 5°, 1°, -8°, -11°$$

a. Place these temperatures in order from coolest to warmest.

b. What is the median temperature?

c. Make up another set of temperatures for one week in Portland during January with a range of -22° to 10°.

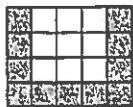**3. Make the number sentence true by placing the correct symbol in the box: >, <, or =.**

d. $6 \boxed{} -6$ b. $9 \boxed{} -10$

c. $-2 \boxed{} -12$ d. $-17 \boxed{} -18$

3. Shrya needed 3 cups of flour for a recipe. She could only find a $\frac{1}{4}$-cup measuring cup. How can she figure out how many times she must fill a $\frac{1}{4}$-cup measuring cup to get 3 cups.	Justify your solution.
4. In the refrigerator, Teguh found $\frac{3}{4}$ of a pizza. He ate $\frac{1}{6}$ of what was there. How much pizza did he eat? Use **pictures** such as an area model or number line to solve this problem.	Justify your solution.
5. Carletta bought 14 yards of string to make shoelaces for her basketball team. She estimates that it takes $\frac{2}{5}$ yard to make one shoelace. How many shoelaces can she make?	Justify your solution.

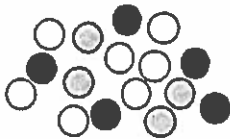|	
3. Express the shaded region of the grid as a fraction, a decimal, and a percent. 	Justify your solution.
4. The girls' softball team went out to the local pizza restaurant to celebrate their victory. The bill came to $80. What would be the amount of a 15% tip on this bill? The amount of a 15% tip on the bill of $80 is _____	Justify your solution.
5 Estimate the product. 12.3×4.2	Justify your solution.

Name: _____ **Period:** _____ **Date:** _____

Short Answer

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1.

What is the ratio of the total number of dots to the number of grey dots? Show your work.

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Justify your solution. Explain why you chose the answer you did. Use math vocabulary when possible.

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2. Lorreen sells 18 adult tickets, 23 student tickets, and 10 discount tickets for the school play. Write the ratio students tickets to adult tickets in three ways.

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Justify your solution.

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3
You pay $4.5 for 9 bagels. What is the unit price?

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Justify your solution.

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Add, Subtract, Multiply, or Divide

1.1 + 2.8

0.9 - 0.2

3.5 + 6.14

12.66 - 3.41

9.242 + 0.87

35.87 - 10.2

1.306 + 5.5 + 46.77

40.4 - 6.37

$$\begin{array}{r} 0.7 \\ \times\ 0.4 \\ \hline \end{array}$$

$9\overline{)211.5}$

$$\begin{array}{r} 0.12 \\ \times\ \ 0.6 \\ \hline \end{array}$$

$0.2\overline{).31}$

$$\begin{array}{r} 31.002 \\ \times\ \ \ 9 \\ \hline \end{array}$$

$4.6\overline{)58}$