BRIDGEPORT PUBLIC SCHOOLS

MATHEMATICS DEPARTMENT

MATHEMATICS SUMMER PACKETS

End of Grade 6 Entering Grade 7

STUDENT NAME: _____

SCHOOL: _____

rev. 4/25/25

Dear Future 6th Grader,

Success in 6th Grade Mathematics begins with a solid foundation in the skills and concepts you learned in 5th Grade and elementary school. These are essential for understanding new topics and solving both mathematical and real-world problems.

This summer, we encourage you to review and strengthen these foundational skills. The provided packet includes key practice problems and links to online resources. Work on a few problems each day, use the resources if needed, and don't hesitate to seek help from friends, family, or additional tools.

Your completed packet is due when you return in August. Teachers will review these prerequisite skills and assess your understanding early in the school year. Learning math is like building a house—strong foundations are critical for growth. Strengthening these basics now will set you up for success.

We hope you not only excel in math but also enjoy discovering its beauty. Have a wonderful summer, and come back in the fall ready to aim high and believe in your potential!

Summer Math Packet for Incoming 7th Grade

Week 1

Day 1- Basic Skills

Simply the following fractions

1. $\frac{12}{20}$ =

2. $\frac{6}{27}$ =

3. $\frac{12}{18}$ =

Day 2 -Operations with Decimals

1. 5 + 7.84 + 28.062

2. 503 + 236.408 + 2.898

Day 3 -Operations with Fractions

Add the following fractions. Remember to use common denominators.

1. $\frac{1}{4} + \frac{3}{8}$ =

2. $\frac{7}{9} + \frac{5}{6}$ =

Day 4 - Expressions

Evaluate

1. 150 + n if n = 15

2. 30n if n = 2.5

3. 5n + 3 if n = 4

Day 5 - Solving Equations

1. x + 9 = 18

2. n + 3.5 = 10.5

Day 6 - Potpourri

Exponents

Write each expression in exponential form

1. 8 · 8 · 8 =

2. 6 · 6 · 6 · 6 · 6 =

3. 4 · 4 · 4 · 4 =

Week 2

Day 1 –Basic Skills

Find the equivalent fraction for each

1. $\frac{3}{8} = \frac{\quad}{48}$

2. $\frac{2}{5} = \frac{\quad}{20}$

3. $\frac{1}{6} = \frac{\quad}{30}$

Day 2 –Operations with Decimals

1. 215 – 204.8

2. 100 – 21.05 – 0.074

Day 3 –Operations with Fractions

Subtract the following fractions. Remember to use common denominators.

1. $\frac{7}{8} - \frac{3}{6} =$

2. $\frac{3}{4} - \frac{1}{5} =$

Day 4 – Expressions

Evaluate

1. 12n if n = 9

2. 3n + 2 if n = 5

3. 4n ÷ k if n = 6 and k = 8

Day 5 – Solving Equations

1. x – 4 = 12

2. n – 5.4 = 8.5

Day 6 – Potpourri

Exponents

Write each expression as repeated multiplication and find each value

1. $2^5 =$

2. $3^4 =$

3. $5^3 =$

Week 3

Day 1 – Basic Skills

Order the following from least to greatest

1. 2.17, 2.3, $2\frac{1}{8}$

2. 0.2, 0.02, $\frac{1}{4}$

Day 2 –Operations with Decimals

1. $7.32 \cdot 4.6$

2. $1.36 \cdot 0.08$

Day 3 –Operations with Fractions

1. $\frac{3}{8} \cdot \frac{5}{6} =$

2. $3\frac{1}{2} \cdot \frac{7}{10} =$

Day 4 – Expressions

Translate each phrase to an expression

1. a number minus 7

2. the difference of two and a number

3. the sum of a number and twenty-two

Day 5 – Solving Equations

1. $2x = 12$

2. $5n = 3.5$

Day 6 – Potpourri

Order of Operations

Simplify each expression

1. $4^2 + 48 \div (10 - 4)$

2. $50 \div 5^2 + 7 \cdot 3$

Week 4

Day 1 – Basic Skills

What is the reciprocal of each of the following

1. $\frac{5}{6}$

2. 8

3. $2\frac{1}{3}$

Day 2 –Operations with Decimals

1. 6.48 ÷ 0.36

2. 27.9 ÷ 6.2

Day 3 –Operations with Fractions

1. $\frac{2}{5} \div \frac{14}{15} =$

2. $\frac{7}{8} \div \frac{1}{2} =$

Day 4 – Expressions

Translate each phrase to an expression

1. three more than n

2. the product of fourteen and g

3. the quotient of n and 5

Day 5 – Solving Equations

1. $\frac{x}{4} = 5$

2. $\frac{n}{3} = 3.3$

Day 6 – Potpourri

Order of Operations

Simplify each expression

1. $7 + 24 \div 6 \cdot 2$

2. $5 \cdot (28 \div 7) - 4^2$

Week 5

Day 1 – Basic Skills

Write the following fractions as decimals

1. $\frac{3}{4}$

2. $\frac{2}{5}$

3. $\frac{7}{20}$

Day 2 –Operations with Decimals

1. 11.49 + 0.083 =

2. 84.34 – 67.235 =

Day 3 –Operations with Fractions

1. $4\frac{2}{3} - 2\frac{1}{9} =$

2. $1\frac{7}{10} + 3\frac{3}{4} =$

Day 4 – Expressions

Expand each expression by using the distributive property

1. 2(x + 3)

2. 4(2 + n)

Day 5 – Solving Equations

1. 2x + 4 = 10

2. 3x + 5 = 11

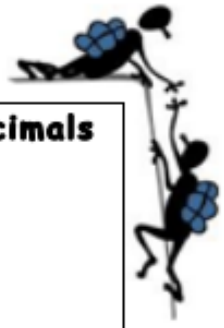
Day 6 – Potpourri

Find the GCF for each set

1. 24 and 108

2. 45, 18, and 39

Week 6



Day 1 – Basic Skills

Write each improper fraction as a mixed number and each mixed number as an improper fraction.

1. $\frac{39}{4}$
2. $\frac{26}{7}$
3. $7\frac{5}{6}$
4. $6\frac{3}{8}$

Day 2 –Operations with Decimals

1. 5.23 · 3.2 =
2. 5.13 ÷ 27 =

Day 3 –Operations with Fractions

1. $2\frac{1}{4} \cdot 2\frac{2}{3} =$
2. $3\frac{1}{8} \cdot 1\frac{1}{4} =$

Day 4 – Expressions

Expand the expressions using the distributive property

1. 4 (2 + 3x)
2. 5 (4 + 6x)

Day 5 – Solving Equations

1. $x + 2x + 3 = 15$
2. $x + 6\frac{2}{3} = 11$

Day 6 – Potpourri

Write the prime factorization of each number

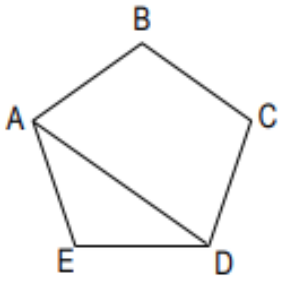
36 | 54

Unit: KNOWLEDGE of GEOMETRY

Objective: Identify and describe diagonal line segments.

• A line segment connecting two vertices of a polygon is either a side or a **diagonal**.

Examples:

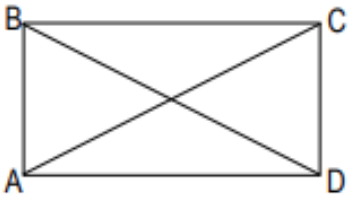


$\overline{AE}$ is a side of polygon *ABCDE*

$\overline{AD}$ is a **diagonal** of polygon *ABCDE*

1.)

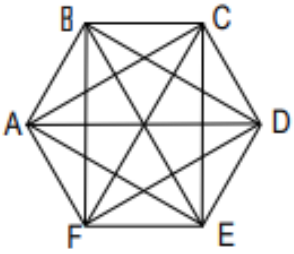
Is $\overline{AB}$ a diagonal of polygon *ABCD*?



YES NO

2.)

Circle all of the diagonals of polygon *ABCDEF*.



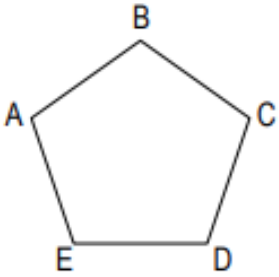
$\overline{AB}$ $\overline{AC}$ $\overline{AD}$ $\overline{AE}$ $\overline{AF}$
$\overline{BA}$ $\overline{BC}$ $\overline{BD}$ $\overline{BE}$ $\overline{BF}$
$\overline{CA}$ $\overline{CB}$ $\overline{CD}$ $\overline{CE}$ $\overline{CF}$
$\overline{DA}$ $\overline{DB}$ $\overline{DC}$ $\overline{DE}$ $\overline{DF}$
$\overline{EA}$ $\overline{EB}$ $\overline{EC}$ $\overline{ED}$ $\overline{EF}$
$\overline{FA}$ $\overline{FB}$ $\overline{FC}$ $\overline{FD}$ $\overline{FE}$

3.)

Name one diagonal of polygon *WXYZ*

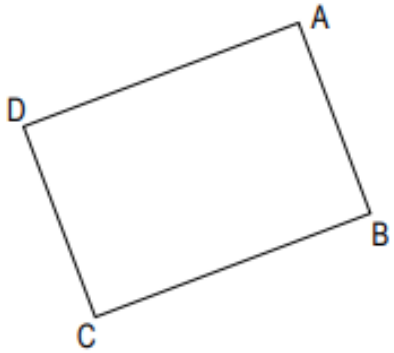
4.)

Name all of the diagonals polygon *ABCDE*



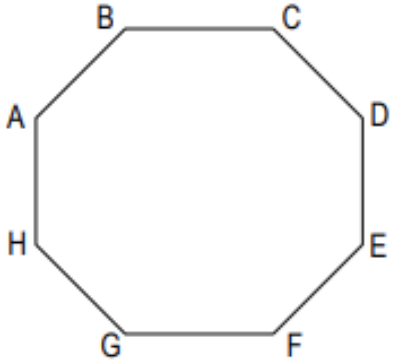
5.)

Draw one diagonal on polygon KLMN



6.)

Draw all of the diagonals of polygon *ABCDEFGH*

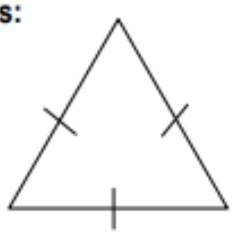


Unit: KNOWLEDGE of GEOMETRY

Objective: Compare or classify triangles as scalene, equilateral, or isosceles.

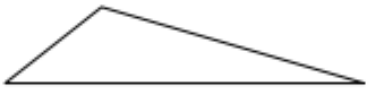
Triangles are polygons that have **three sides**, three vertices, and three angles.
Triangles can be **classified by the number of congruent sides**, which are sides of equal length.
The same markings on the sides of a triangle show that the sides are **congruent**.

Examples:



Equilateral triangle
Three congruent sides

Isosceles triangle
Two congruent



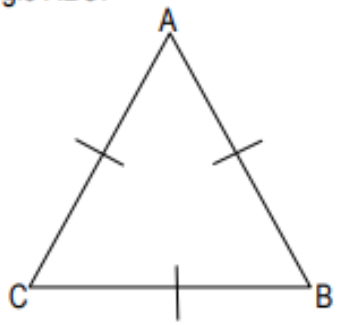
Scalene triangle
No congruent sides

1.) Shown is Equilateral triangle *ABC*.

$\overline{AB}$ = 6 cm.

$\overline{BC}$ = _____

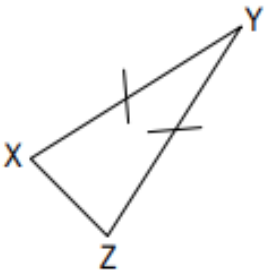
$\overline{CA}$ = _____



2.) Shown is Isosceles triangle XYZ.

$\overline{XY}$ = 5 in.

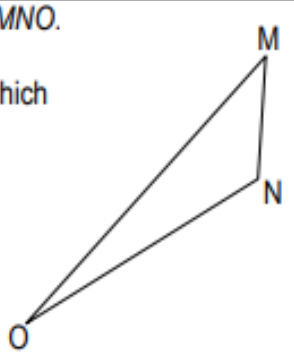
What must be the length of side $\overline{YZ}$?



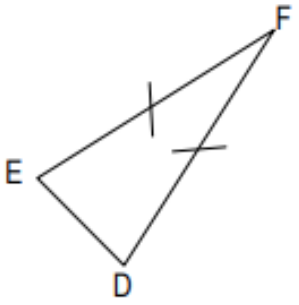
3.) Shown is Scalene triangle *MNO*.

Circle the set of numbers which could be the lengths of the three sides.

3 cm, 5 cm, 6 cm
2 cm, 4 cm, 4 cm
2 cm, 2 cm, 2 cm



4.) Classify triangle *DEF*.



Equilateral

Scalene

Isosceles

5.) Draw an Equilateral triangle. Label the vertices. Name the sides and their lengths.

6.) Draw a Scalene triangle. Label the vertices. Name the sides and their lengths.

Topic: Rational Numbers - Ordering fractions alone and on a number line, Ordering decimals, +, -, x, ÷ rational numbers (fractions only), Comparing rational numbers and place value.

1. Place the following numbers in order from least to greatest.

$$2\frac{3}{4}, \frac{1}{5}, 1\frac{3}{4}, 2\frac{3}{5}$$

2. Order the following fractions on the number line below. $\frac{1}{2}, \frac{3}{4}, \frac{1}{5}, \frac{7}{8}$

Solve the following problems in the space provided showing all of your work.

3. $10\frac{3}{4} + 9\frac{1}{12}$

4. $\frac{7}{12} \times \frac{3}{5}$

5. $\frac{4}{9} \div \frac{2}{3}$

6. $7\frac{1}{2} - 3\frac{3}{4}$