Math 2 Classwork 8

WARM-UP

1

Mental Math

a) Tom is 4 years older than Mark. Mark is 10 years old. How old is Tom?

b) Two children in a family are aged 10 and 12. Alan is older than Kate. How old is Alan?

c) In a swimming race, Jane finished before Kim; Pam finished before Jane.

1. Who finished first?
2. Who finished last?

d) Sue is 1 year older than Rachel and 2 years younger than Jane.

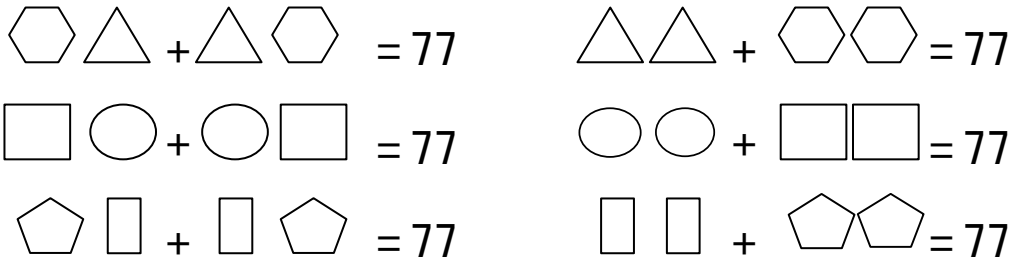
1. Jane is 9 years old.
2. How old is Sue?
3. How old is Rachel?

Homework Review

1. Find the sum using the commutative property of addition.

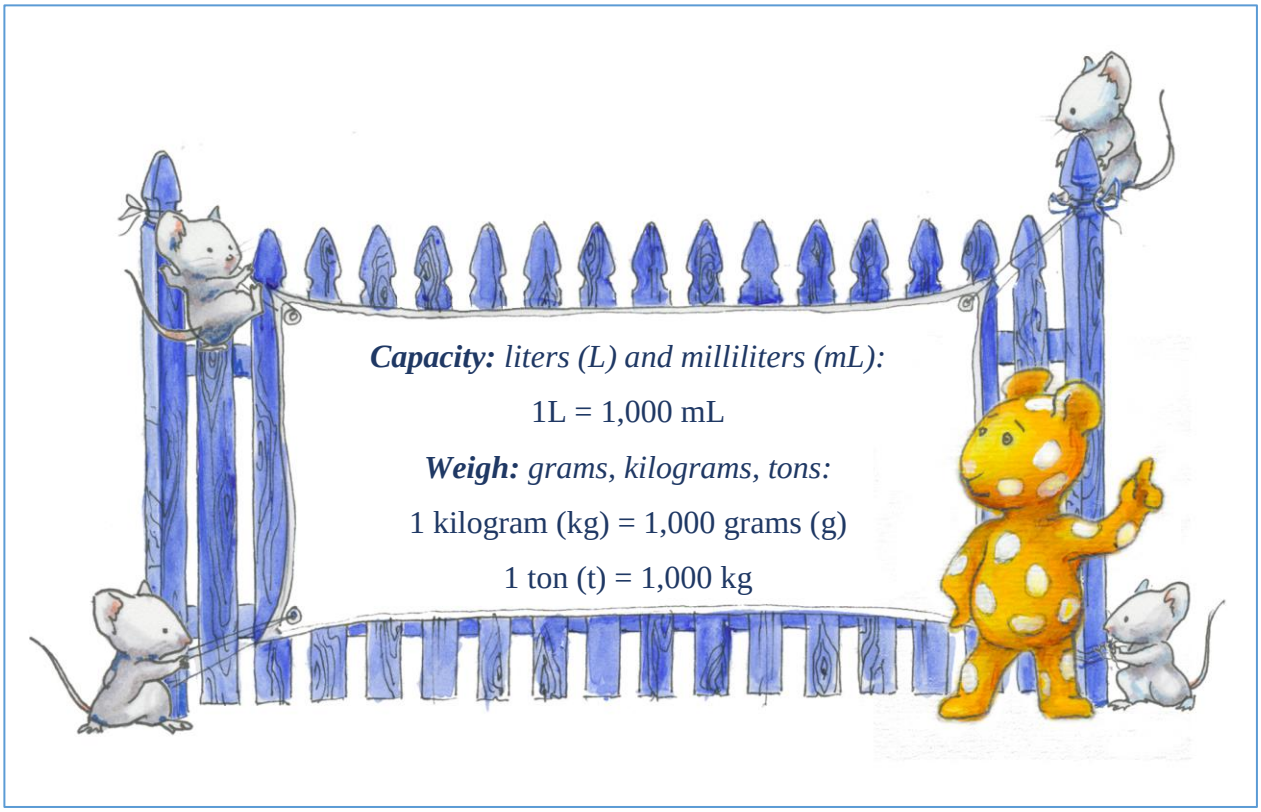
5 + 15 + 25 + 35 + 45+ 55 + 65+ 75 + 85 + 95 = _____

2. Replace shapes with numbers to get an equality in each case.



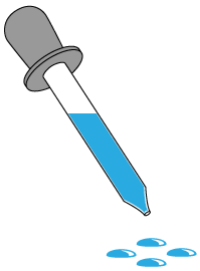
1. *Example: 34 +43 = 77*
2. _____
3. _____
4. _____
5. _____
6. _____

Capacity. Weight.



This bottle holds 1 liter of water.

A milliliter is about 20 drops of water.



A paperclip weighs about 1g.

A big textbook weights about 1kg

A medium car weighs about 1 ton.

2 Read questions and circle a correct answer:

a) Mr. Franklin filled a bucket with water to clean his floor. Does his bucket more likely hold 9 liters or 9 milliliters of water?

b) A baker adds half of a teaspoon of vanilla to her cake recipe. Did she use 2.5 L or 2.5 mL of vanilla?

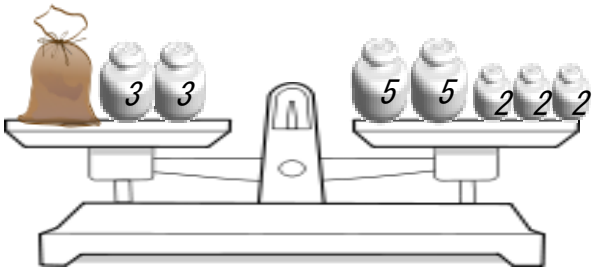
c) Chris bought a cup of hot chocolate. Does his cup more likely hold 400 liters or 400 milliliters of hot chocolate?

d) Which of the following should be measured in liters (not milliliters)? Circle ones.
Cough drops, toothpaste, juice, fish tank, shampoo, yogurt, milk.

3 How many *kg* does the bag of flour weigh?

_____

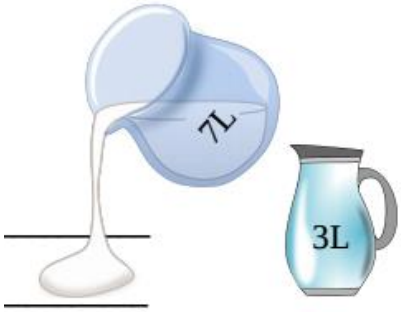
_____



4 There are two jars: a 7-liter and a 3-liter. Explain the meaning of the following expressions:

7 + 3 _____

7 – 3 _____



5 Compare, using >, <, or =:

23 cm ___ 5 cm	68 cm ___ 6dm and 8 cm	3 dm _____ 36 cm
180g ___ 18kg	51kg ___ 510g	700g ___ 70kg
500 mL ___ 1L	9L ___ 950mL	3L ___ 350mL

6 REVIEW

Calculate:

		3	6	2					4	0	5				6	1	4					
	-		1	8				-		1	6			-			9					
		1	0	8					3	5	2				4	1	0					
	-		1	9				-		2	3			-		1	4					

7

Over the summer, a group of tenth graders went for a tour of historic battlefields. During the trip, the students traveled 251 km by train, 96 km by bus and walked 26 km. What is the total distance the group has travelled?

_____

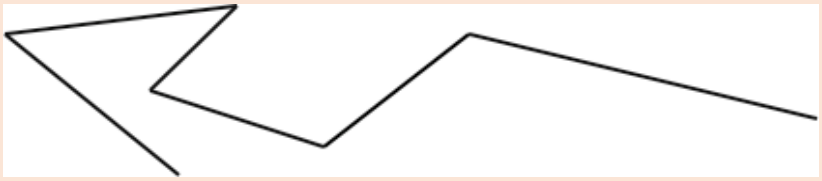
_____

8

Name each object and explain what it measures.

New Material II

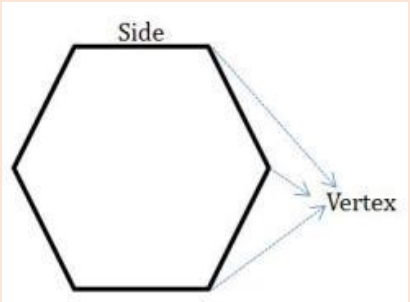
In geometry, a **polygonal chain** is a is a collection of line segments, connected end to end and not self-intersecting. Polygonal chain can be “open” or “closed”.



If three or more line segments connected end to end is called a **Polygon.**

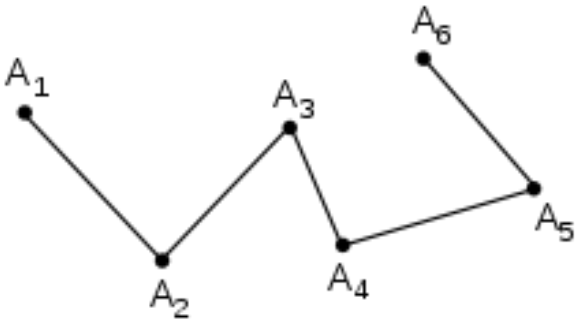
- The line segments forming the polygon are called sides.
- The point of junction of two line segments is called a vertex.

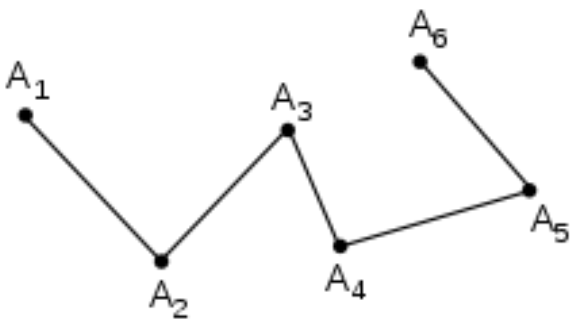
Number of vertices of a polygon is equal to the number of line segments or sides.



A polygon is any **shape** made up of straight lines that can be drawn on a flat surface, like a piece of paper.

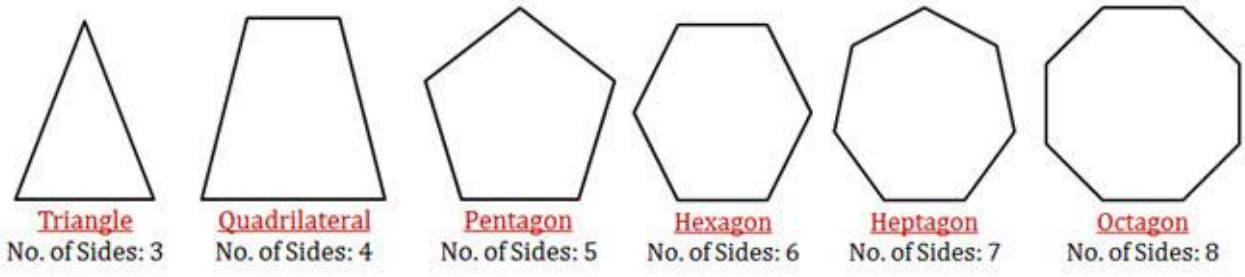
9 How many segments does polygonal chain below have? How many vertices (points where segments are connecting to each other or end)? Is this chain closed or open?
Show how to make it closed with one line segment and with two line segments (you have 2 separate drawings to do it)

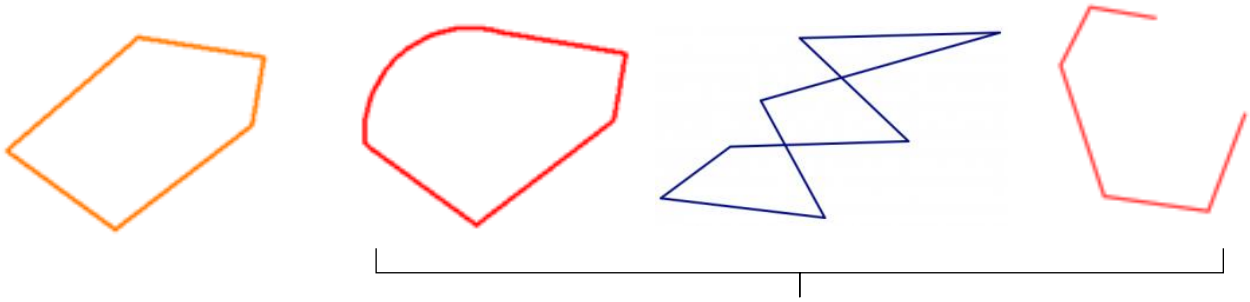




POLYGON comes from Greek: POLY – means “many” and GON means “angle”

Different types of polygons:

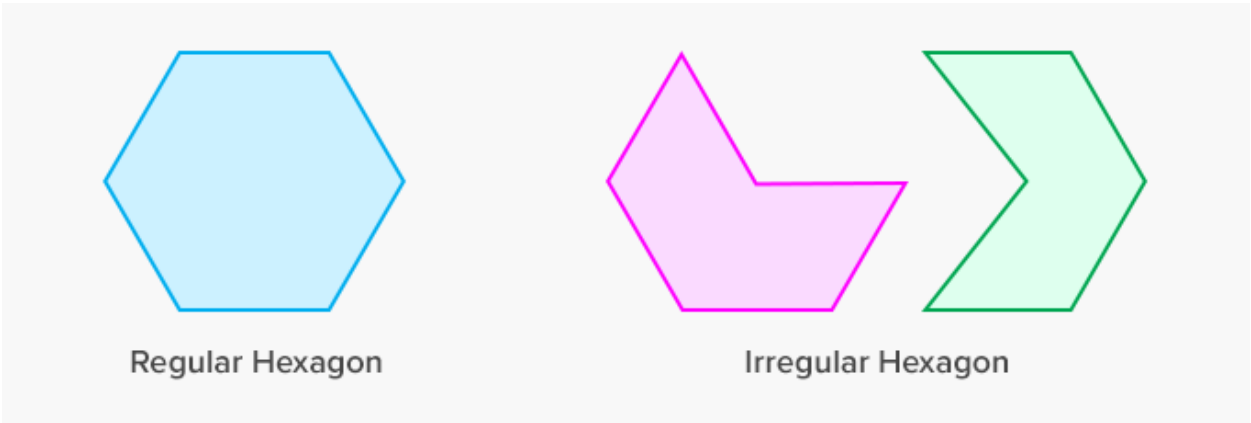




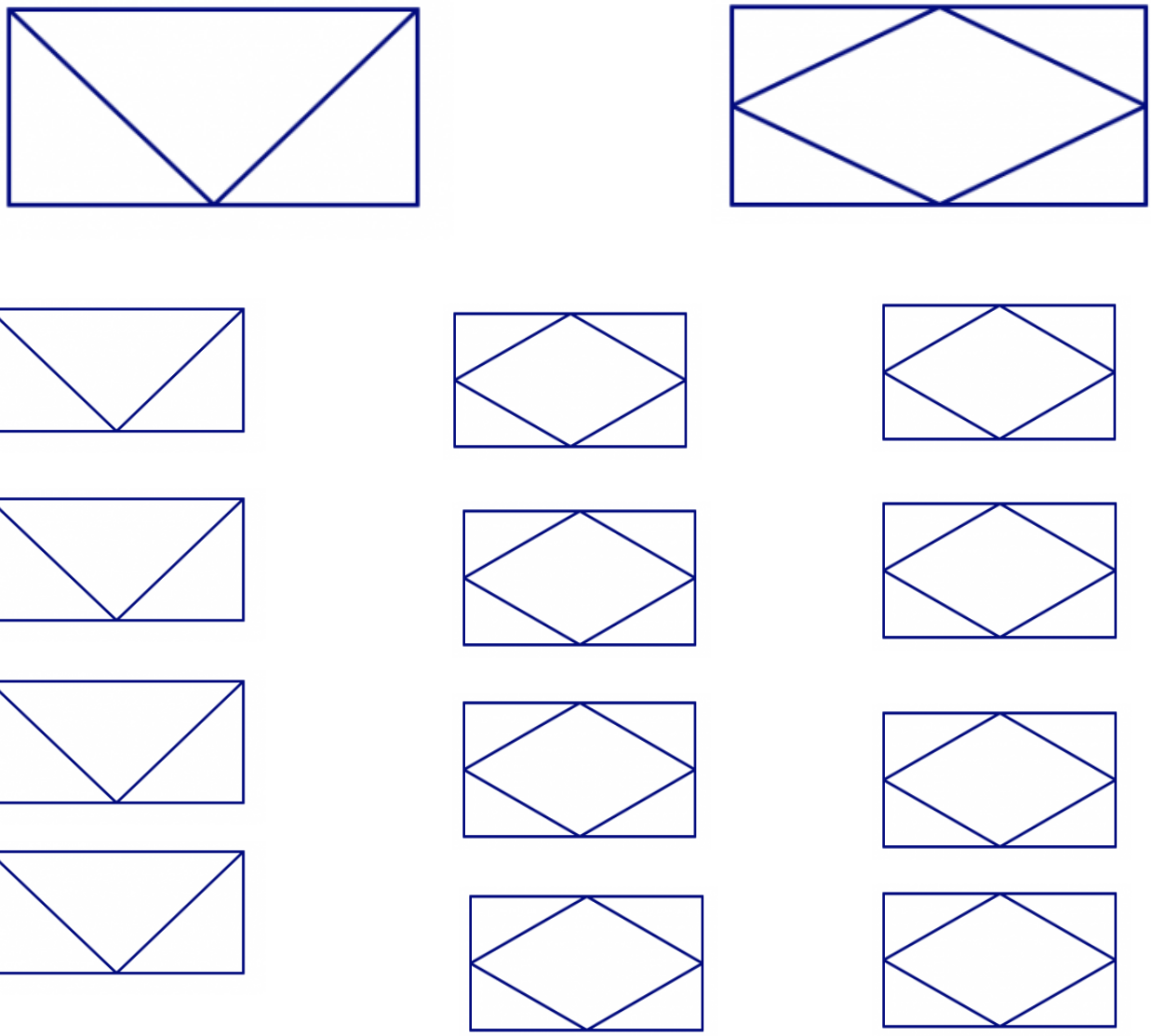
Polygon NOT Polygons - WHY?

Types of Polygons

When the length of all the sides and measure of all the angles are equal, it is a **regular polygon**, otherwise it is an **irregular polygon**.



10 In the pictures below, there are polygons hidden in the design. In each design, find all of the triangles, quadrilaterals, pentagons, and hexagons. How can you be sure you've found them all and haven't counted any twice?



Challenge Yourself

11 There are 5 daughters in the family. Each daughter has 1 brother.

How many children are there in the family?