

# Math 2 Classwork 10

## WARM UP

1

Calculate:																			
		6	0	7			3	0	5			7	0	4					
	-	1	0	8			-		7	7		-		2	9				
		1	0	8			3	2	9			4	8	9					
	+	1	1	9			+	2	0	3		+		1	4				

Solve equations and check your answers:

2

a)  $14 + x = 26$

b)  $x - 18 = 33$

c)  $89 - a = 71$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3

Mental math.

$24 + 56 =$

$100 - 80 =$

$43 - 13 =$

$35 + 15 =$

$10 + 95 =$

$60 + 60 =$

$51 - 22 =$

$28 - 14 =$

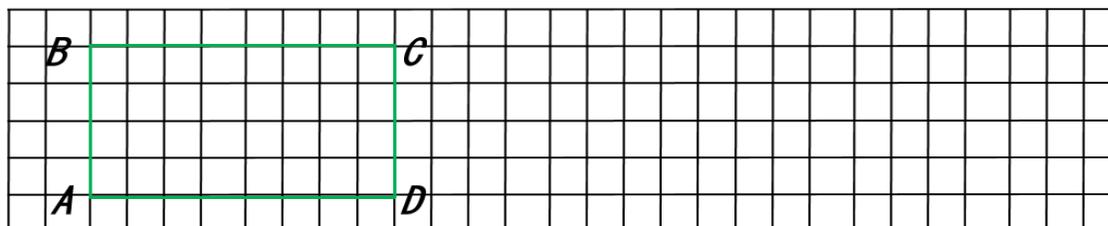
## Homework Review

Find the perimeter of the rectangle ABCD plotted on the drawing. Express the perimeter P (sum of lengths of all sides) in units of length.

Draw another rectangle KLMN next to the ABCD such as:

length of side KL is one unit longer than AB and length of side LM two units bigger than BC.

What is the perimeter of the new rectangle KLMN?



Length of side  $\overline{AB} = 4$  units

Length of side  $\overline{BC} = 8$  units

P = \_\_\_\_\_

$\overline{KL} =$  \_\_\_\_\_

$\overline{LM} =$  \_\_\_\_\_

P = \_\_\_\_\_

## New Material I

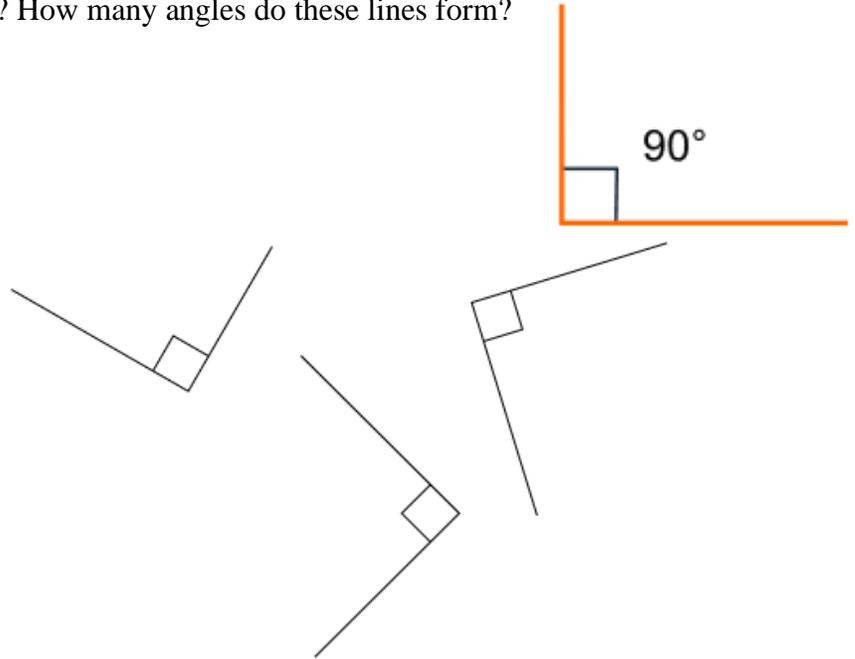
### Making a Right Angle Template.

4

Fold a sheet of paper in half and then in half again. Using a ruler trace the creases with a pencil. How many straight lines did you get? How many angles do these lines form?

Note the special symbol in the angle. If we see this box, it is a right angle. The  $90^\circ$  is rarely written in.

All the angles below are right angles. Use your right angle template to check it.



5

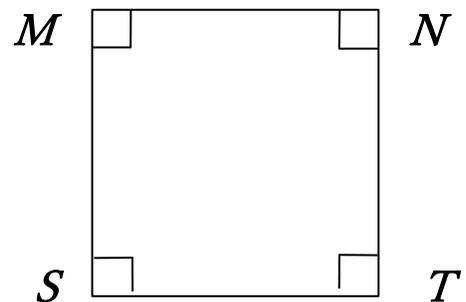
Find examples of right angles in your room.

6

a) Write a name of the rectangle \_\_\_\_\_  
 Using a ruler measure sides  $CF$  and  $QR$  \_\_\_\_\_  
 Using a ruler measure sides  $CQ$  and  $FR$  \_\_\_\_\_  
 What did you notice?



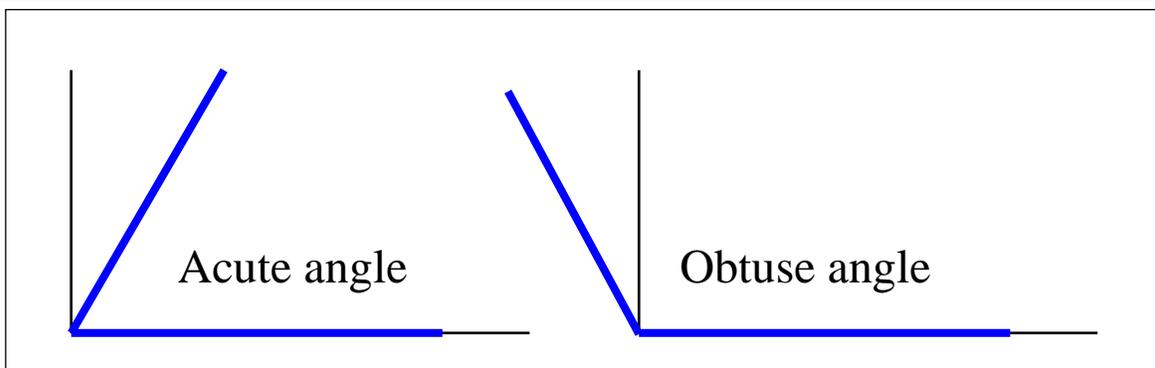
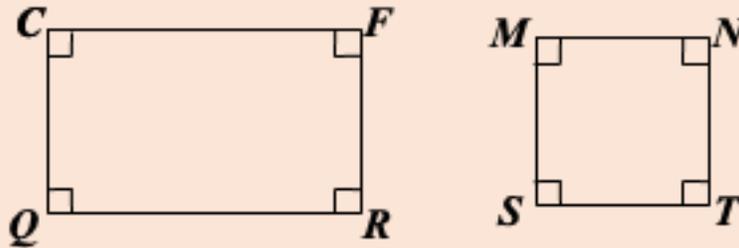
b) Write a name of the square \_\_\_\_\_  
 Using a ruler measure sides  $MN$  and  $ST$  \_\_\_\_\_  
 Using a ruler measure sides  $SM$  and  $NT$  \_\_\_\_\_  
 What did you notice?



**Special quadrilaterals:**

**Rectangle:** a quadrilateral in which all four angles are right angles.

**Square:** a quadrilateral in which all 4 angles are right angles, and all 4 sides are of equal length.

**Types of angles:**

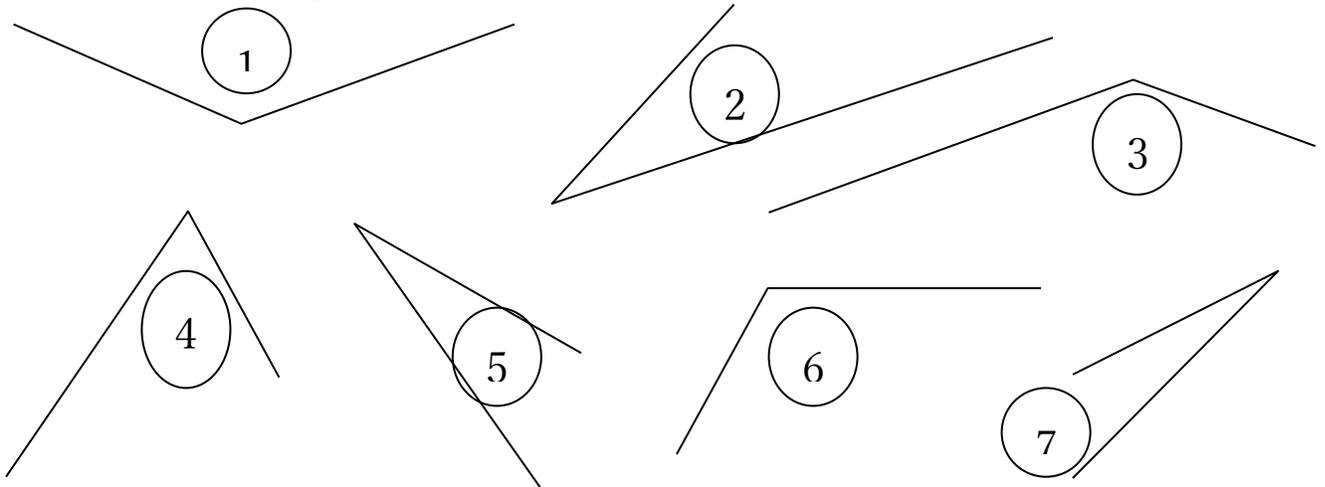
An **acute angle** is an angle that is smaller than a right angle.

An **obtuse angle** is an angle that is larger than a right angle.

**7** Use a right angle template to find all acute angles and all obtuse angles. List them:

a) The acute angles \_\_\_\_\_

b) The obtuse angles \_\_\_\_\_



8

Quadrilateral is divided in squares. Find a perimeter of a quadrilateral if one side of the shaded square is 8 cm.

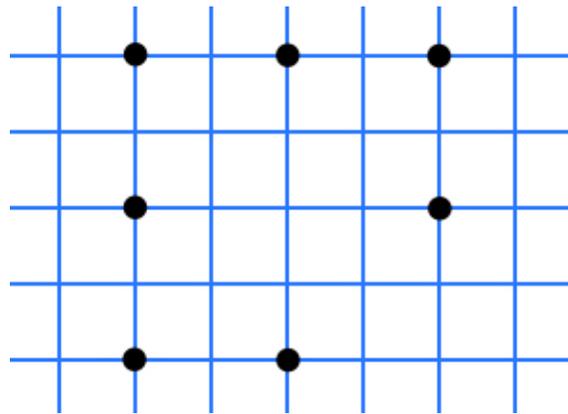
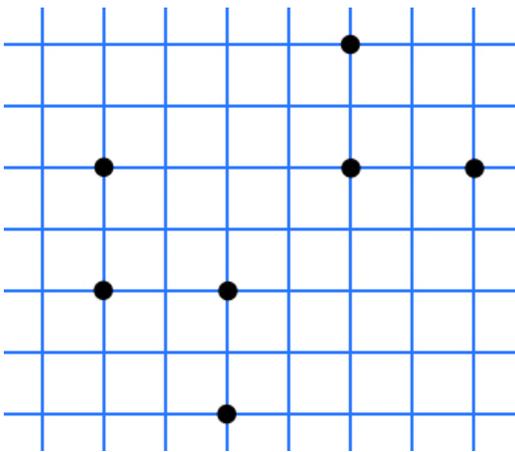
P = \_\_\_\_\_



9

Connect exactly four points on the pictures below to make

- a rectangle
- a square



## REVIEW

10

Compare if possible, using  $>$ ,  $<$ , or  $=$ . Cross out everything what cannot be compared. Explain.

$23 \text{ kg} \square 5 \text{ kg}$

$68 \text{ cm} \square 86 \text{ cm}$

$3 \text{ dm} \square 16 \text{ cm}$

$18 \text{ l} \square 37 \text{ l}$

$51 \text{ dm} \square 57 \text{ dm}$

$7 \text{ m} \square 8 \text{ kg}$

11

Compare expressions using  $>$ ,  $<$ , or  $=$ :

$a \square a + c$

$a + b \square b + a$

$38 - b \square 68 - b$

$b \square b - 5$

$k + 26 \square 62 + k$

$a - 0 \square a + 0$

$4 \square d - d$

$54 + n \square 54 - n$

$c - 19 \square c - 90$

12

Check if the equality  $12 - 8 = 3 + 1$  still holds if

- We add 7 to the left part and 4 to the right part \_\_\_\_\_
- We add 10 to both parts \_\_\_\_\_

c) We add 5 to the right part \_\_\_\_\_

Check if equality  $15 - 4 = 5 + 6$  still holds if

a) We subtract 5 from the right side \_\_\_\_\_

b) We subtract 6 from both sides \_\_\_\_\_

c) We subtract 1 from the left side and add 1 to the right side \_\_\_\_\_

**13**

Write down the following expressions:

The sum of  $m$  and  $n$  \_\_\_\_\_

The difference between  $34$  and  $x$  \_\_\_\_\_

The difference between  $200$  and  $48$  \_\_\_\_\_

### Challenge yourself

**14**

There are apples on three plates: 1 apple on the 1<sup>st</sup> plate, 3 apples on the 2<sup>nd</sup> plate, and 8 apples on the 3<sup>rd</sup> plate. Move apples from plate to plate to make the number of apples on each plate the same. Follow the rules:

- In one move, you can take any number of apples from one plate and move them to the other plate.
- The number of apples you can add to any plate should be equal to the number of apples that are already there. In other words, you can only double the number of apples that are already on the receiving plate.
- The total number of moves is unlimited.



