

I. Choose 4 of the puzzles below and draw your answers on triangular graph paper, like we did in class.

17

Create a **PENTAGON**
 using 1 hexagon, 2 trapezoids and 2 triangles



* Pentagon will be irregular; all sides and angles will NOT be the same.

18

Create a **TRIANGLE**
 using 3 hexagons and 7 triangles



19

Create a **TRAPEZOID**
 using 2 rhombuses, 3 hexagons, 2 triangles and
 1 trapezoid



20

Create a **TRAPEZOID**
 using 3 hexagons, 4 triangle, 2 rhombuses and
 2 trapezoids



24

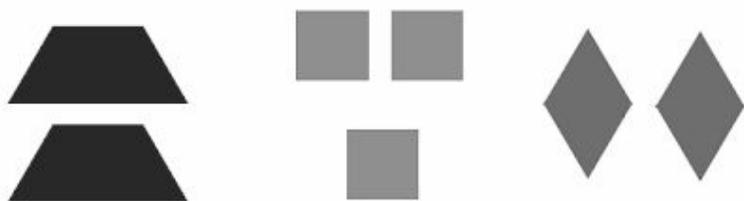
Create a **PENTAGON**
 using 2 hexagons, 2 trapezoids, 3 rhombuses
 and 4 triangles



* Pentagon will be irregular; all sides and angles will NOT be the same.

30

Create an **OCTAGON (8-sided shape)**
 using 3 squares, 2 trapezoids and 2 rhombuses



* OCTAGON will be irregular; all sides and angles will not be the same.

25

Create a **HEPTAGON (7-sided shape)**
 using 1 square, 3 triangles and 2 skinny
 rhombuses



* Heptagon will be irregular; all sides and angles will NOT be the same.

31

Create an **OCTAGON (8-sided shape)**
 using 2 squares, 1 hexagon and 4 skinny
 rhombuses

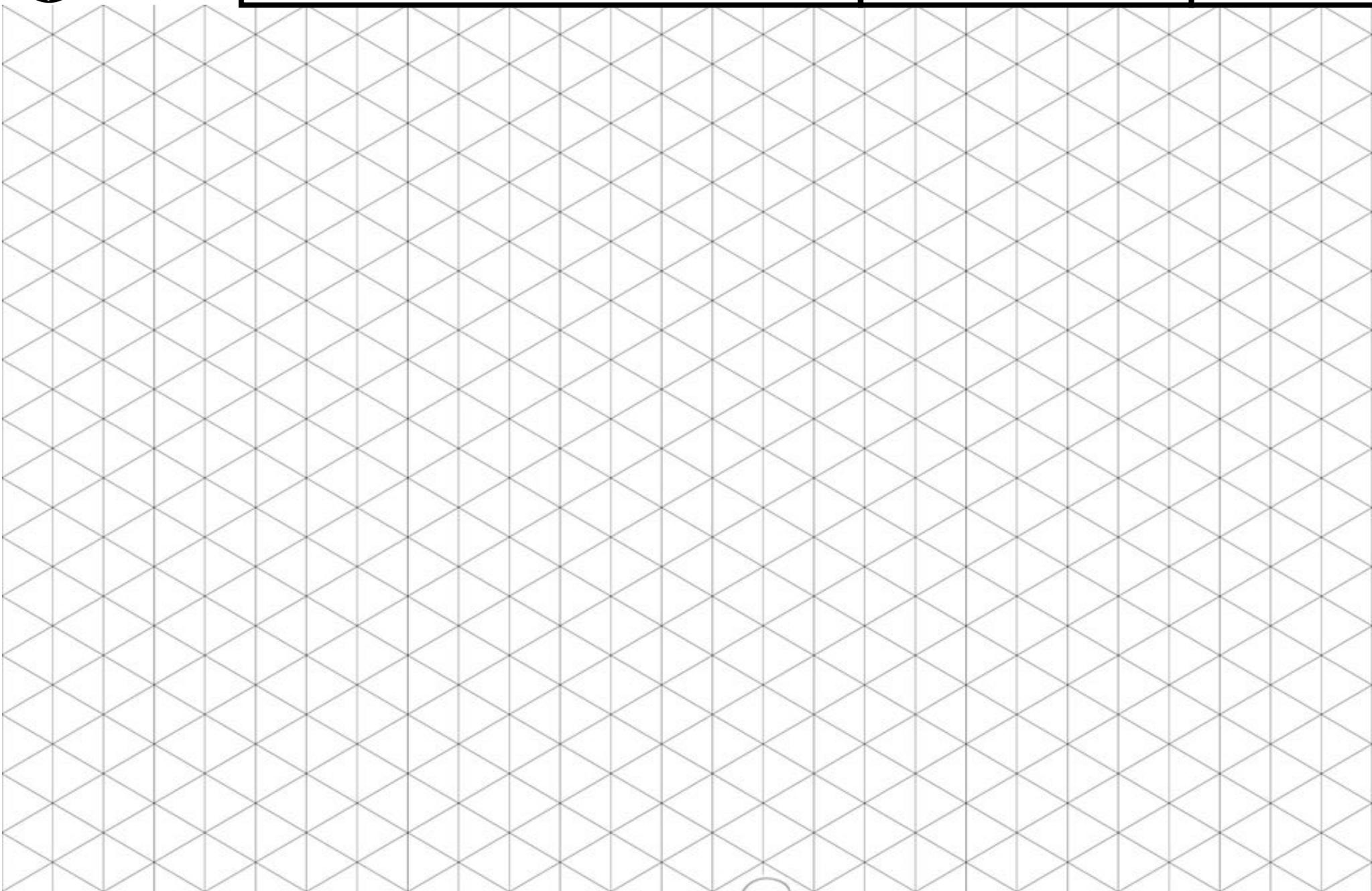


* OCTAGON will be irregular; all sides and angles will not be the same.

Name:

Group "Gauss"
HOMEWORK

Lesson 7



II. Label each gray shape below. Then draw straight lines to split each shape into the necessary figures (see example). **You may need to draw more than one line.**

Example: split into two squares and a rectangle



rectangle

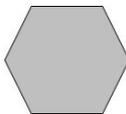
- a. Split into four isosceles triangles (triangles that have two equal sides)



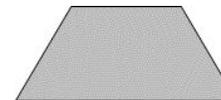
- b. Split into two trapezoids



- c. Split into three rhombuses



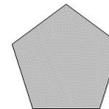
- d. Split into three equilateral triangles



e. Split into a rectangle and two right triangles



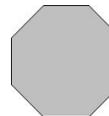
f. Split into three triangles



g. Split into a rectangle and two right triangles



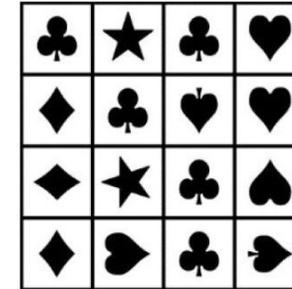
h. Split into two trapezoids and a rectangle



III. Practice Kangaroo problems

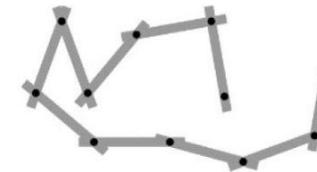
6. Karina cuts out a piece of this form  from the diagram on the right. Which one of the following pieces can she cut out?

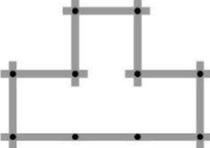
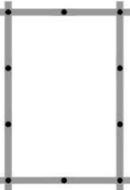
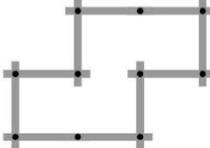
- (A)  (B)  (C)  (D)  (E) 



7. Using the connected sticks shown, Pia forms different shapes.

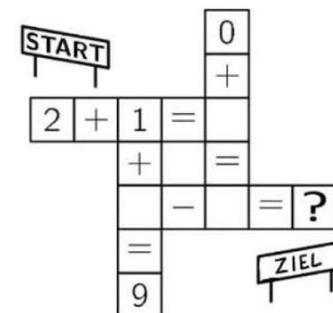
Which shape can she not make?



- (A)  (B)  (C)  (D)  (E) 

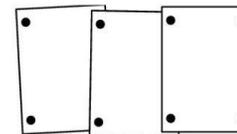
8. Which number goes into the field with the question mark, if all calculations are solved correctly?

- (A) 4 (B) 5 (C) 6 (D) 7 (E) 8



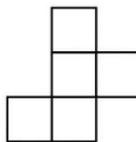
III. Practice Kangaroo problems

9. Linda fixes 3 photos on a pin board next to each other. She uses 8 pins to do so. Peter wants to fix 7 photos in the same way. How many pins does he need for that?

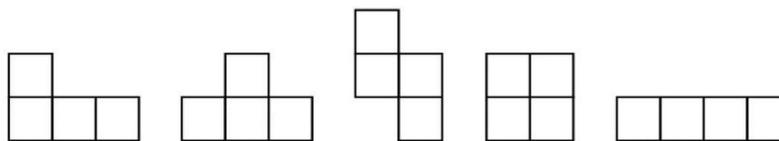


- (A) 14 (B) 16 (C) 18 (D) 22 (E) 26

10. Dennis takes off one of the squares of this shape

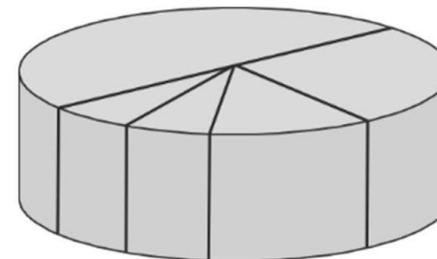


How many of these 5 shapes can he get?



- (A) 1 (B) 2 (C) 3 (D) 4 (E) 5

11. Mother halves the birthday cake. One half she then halves again. Of that she again halves one of the smaller pieces. Of these smaller pieces she once more halves one of them (see diagram). One of the two smallest pieces weighs 100 g.



How much does the entire cake weigh?

- (A) 600 g (B) 800 g (C) 1200 g (D) 1600 g (E) 2000 g

END OF HOMEWORK!
NO WORKSHEETS FOR NEXT CLASS.
BRING PAPER AND PENCIL TO NEXT CLASS