Lampiran A3

LESSON PLAN 4

School	: SMP N 1 Kalasan
Subject	: Mathematics
Grade/ Semester	: VII / 2 (Even Semester)
Topics	: Quadrilaterals (*Kite)*
Time Allocation	: 4 × 40 minutes

A. Standard of competence

6. Understanding the concept of quadrilaterals and triangle, thus determine its size.

B. Basic Competence

6.2 Identifying the properties of rectangle, square, trapezoid, parallelogram, rhombus and kite.

6.3 Calculating the perimeter and the area of quadrilaterals then use in problem solving.

C. Indicators

1. Defining the definition of kite
2. Identifying the properties of kite
3. Finding the kite perimeter's formula
4. Finding the kite area's formula
5. Calculating the perimeter of kite and use in problem solving
6. Calculating the area of kite and use in problem solving

D. Learning Objectives

1. The students are able to define the definition of kite
2. The students are able to identify the properties of kite
3. The students are able to find the kite perimeter's formula
4. The students are able to find the kite area's formula
5. The students are able to calculate the perimeter of kite and use in problem solving
6. The students are able to calculate the area of kite and use in problem solving

E. Learning Content

The definition of kite	Kite is quadrilaterals which one of the diagonal coincide with the other symmetri axis.

The properties of kite	a. The adjacent sides are equal in length b. The diagonals are perpendicular c. One of the diagonals is an axis of symmetry d. A pair of opposite interior angles which are equal in measure e. The sum of all angles is 360^0
The perimeter of kite	A kite with the short length $a\ cm$ and the long length $b\ cm$, has a perimeter as: K = $2 \times (a + b)\ cm$.
The area of kite	A kite with the length of diagonal 1 $d_1\ cm$ and the length of diagonal 2 $d_2\ cm$, has an area as: L = $(\frac{1}{2} \times d_1 \times d_2)\ cm^2$.

F. Learning Scenario

First Meeting

Activities	Allocation
❖ **Pre-teaching** 1. Teacher greats the students and checks the readiness of students to rememorize about the definition and the properties of kite. 2. Teacher tells the competences that willl be reached by students.	**10 minutes**
❖ **Main Activities** 1. Teacher gives some real problems about kite. 2. Students learn independently about the definition of kite. 3. The students discuss with his pairs to find the properties of kite. 4. Students are given a chance to ask the materials if they don't understand it. 5. Students does challenge 6.1 to more understand about the properties of kite.	**60 minutes**

6. Teacher pointing out the four students randomly to presents their work and the other students give responses. 7. Teacher guide discussion on the result which has been presented by the students. 8. Teacher gives appreciation to the students who has done his work correctly 9. Students are given a chance to ask their questions if they don't understand it.	
❖ **Closing** 1. The students give argument to make conclusion and then discuss it together to make a right conclusion. 2. Teacher gives homework to learn about the perimeter of kite and the area of kite.	**10 minutes**

Second Meeting

Activities	Allocation
❖ **Pre-teaching** 1. Teacher greats the students and checks the readiness of students to rememorize about the perimeter and the area of kite. 2. Teacher tells the competences that willl be reached by students.	**10 minutes**
❖ **Main Activities** 1. The students discuss with his pairs to find the kite perimeter's formula and the kite area's formula. 2. Some of groups presents his work and the other groups give responses. 3. Teacher guide discussion on the result which has been presented by the students. 4. Students does challenge 6.2 to more understand about the perimeter and the area of kite. 5. Teacher pointing out the students randomly to presents their work and the other students give responses.	**60 minutes**

6. Teacher guide discussion on the result which has been presented by the students. 7. Teacher gives appreciation to the students who has done his work correctly 8. Students are given a chance to ask the questions if they don't understand it.	
❖ **Closing** 1. The students give argument to make conclusion and then discuss it together to make a right conclusion. 2. Teacher gives information that in the next meeting will be held examination about quadrilaterals.	**10 minutes**

G. Learning Medias and References

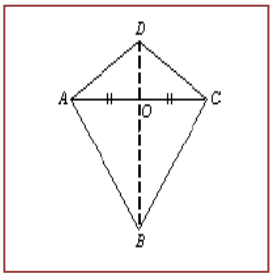
1. Medias
   a. Mathematics module
   b. Ruler
   c. Protractor
   d. Grid paper
2. References
   - Mathematics module with title *"Mathematics Module of Quadrilateral Materials Through Realistic Mathematics Education Approach*" on page 189-224.

H. Assessment

1. The technical of assessment
   ❖ Written assessment
2. The form of assessment
   ❖ Exercises
3. Instrument

   Do the exercises below!

   1. Bima got a assignment to make a kite from a paper as the picture on the right. The sizes are DO = 12 cm, AC = 30 cm and BD = 32 cm. Determine :
      a. the length of DC b. the length of AB



2. PQRS is a kite. If the coordinates P, Q and R respectively are (4,4) , (6,3) and (4,0). Determine :
    a. the coordinate of point S
    b. the coordinate of the diagonal intersection
3. Mona makes a kite with the length of diagonal 24 cm. Determine the length of another diagonal if the area of a kite is 492 cm^2.
4. Danang will make a kite from a paper. He prepares two pieces of sticks that is used as a frame with the length of each stick 40 cm and 24 cm respectively. Find the minimum area of the paper required to make a kite!
5. Ludye sells her own-made kite by the size:

    Diagonal 1 = 35 cm
    Diagonal 2 = 20 cm

    The price of a paper with size 1.5 m × 1.5 m is Rp33,750.00. If Ludye wants to make 300 kites and the price of a kite is sold at Rp750,00. Determine whether Ludye get a profit or a loss from her sale then count it!

4. Evaluation principle

    The exercises contains 5 questions. Every question have score 20 and maximal score is 100.

    Score $= \frac{\text{Student score}}{\text{Maximal score}} \times 100$

5. Assessment criteria
    - Students are considered successfully if they received a value ≥ 75
    - Learning is considered successfully if 80% of students scored ≥75

Approved by: Yogyakarta, March 7th 2012

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