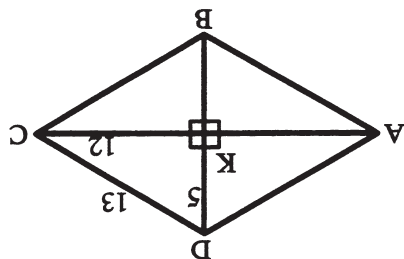
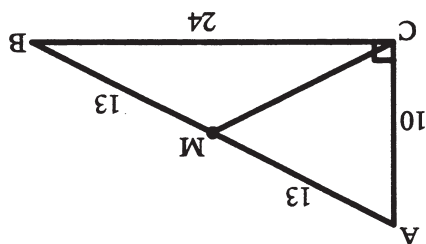


- 7. 113.2
- 7. 45°
- 6. 40

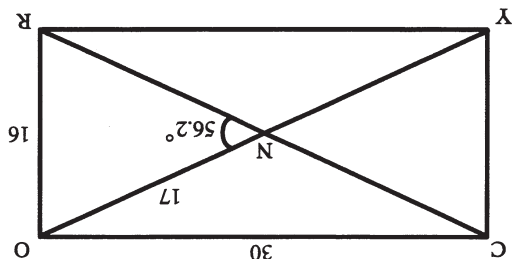


- 5. 52
- 4. 10
- 3. 67.4°
- 2. 22.6°



- 1. 13 (T14-4)

- 11. 92
- 10. 61.9°
- 9. 34



GEOMETRY

The Complete Course

Lesson Fourteen

Rectangles, Rhombuses And Squares

KA8474

Worksheet

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I. VIDEOTAPE FOLLOW-UP QUESTIONS

- I. Introduction.
 - A. Most common polygon (Quad.)
 - B. Review family tree of quadrilaterals
 - C. Review parallelogram properties
- II. Rectangles and applied properties and theorems.
 - A. Definition
 - B. Applied properties from parallelograms
 - C. Applied theorems
 1. A parallelogram with one right angle is a rectangle. (T14-1)
 2. A parallelogram with congruent diagonals is a rectangle. (T14-2)
 3. The diagonals of a rectangle are congruent. (T14-3)
 - D. Midpoint of hypotenuse theorem: The midpoint of the hypotenuse of a right triangle is equidistant from the three vertices. (T14-4)
- III. Rhombuses and applied properties and theorems.
 - A. Definition
 - B. Applied properties from parallelograms
 - C. Applied theorems
 1. A parallelogram with two adjacent, congruent sides is a rhombus. (T14-5)
 2. A parallelogram with perpendicular diagonals is a rhombus. (T14-6)
 3. A parallelogram with a diagonal that bisects opposite angles is a rhombus. (T14-7)
 4. Each diagonal of a rhombus bisects two angles of the rhombus. (T14-8)
 5. The diagonals of a rhombus are perpendicular. (T14-9)
- IV. Squares and applied properties and theorems.
 - A. Definition
 - B. Applied properties from rectangle and rhombus
 - C. Applied theorems
 1. A rhombus with a right angle is a square. (T14-10)
 2. A rectangle with congruent consecutive sides is a square. (T14-11)

II. SUPPLEMENTARY EXERCISES

1. Given right triangle ABC with midpoint M of hypotenuse \overline{AB} , $AC = 10$, $BC = 24$, $AB = 26$. Find the measure of CM

2-5 Given rhombus ABCD with diagonals intersecting at K, $DK = 5$, $KC = 12$, $CD = 13$, $m\angle DAB = 45.2^\circ$. Find the measures of the following:

2. $m\angle DCK = \underline{\hspace{2cm}}$
3. $m\angle ADK = \underline{\hspace{2cm}}$
4. $BD = \underline{\hspace{2cm}}$
5. Perimeter of ABCD = $\underline{\hspace{2cm}}$

6-8 Given square JAME with diagonals intersecting at S, $JS = 20$, $JA = 28.3$. Find the measures of the following:

6. $EA = \underline{\hspace{2cm}}$
7. $m\angle SAM = \underline{\hspace{2cm}}$
8. Perimeter of JAME = $\underline{\hspace{2cm}}$

9-11 Given rectangle CORY with diagonals intersecting at N, $CO = 30$, $OR = 16$, $NO = 17$, $m\angle ONR = 56.2^\circ$, find the measures of the following:

9. $CR = \underline{\hspace{2cm}}$
 $\angle \hspace{1.5cm} NOR = \underline{\hspace{2cm}}$
10. $m \hspace{1.5cm} NOR = \underline{\hspace{2cm}}$
11. Perimeter of CORY = $\underline{\hspace{2cm}}$