

# Game: Assemble and play Sudoku

# Scenario: Sudoku in the coordinate system

-	-	 -	-	 _	-	-
						(8,8)
(0,0)						

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# TEAM 1 - Hint

1. In the field marked with the point (6,1), enter the ordinate of that point.

# TEAM 1 - Hint

2. In the field marked with the point (3,2), enter a number that is twice the ordinate of that point.

# TEAM 1 - Hint

3. Given the points A(2,5), B(4,7) and C(3,4), determine the point D so that the vectors  $\overrightarrow{AB}$  and  $\overrightarrow{CD}$  are equal. Write the number 2 in the field marked with point D.

# TEAM 1 – Hint

4. Given the points A(3,2), B(1,0) and C(3,5), determine the point D so that vectors  $\overrightarrow{AB}$  and  $\overrightarrow{DC}$  are equal. Write the number 6 in the field marked with the point D.

# TEAM 1 - Hint

5. Given the points A(1,6), B(1,8), C(2,6), determine the point D so that vector  $\overrightarrow{AD}$  is equal to the vector  $\overrightarrow{AB} + \overrightarrow{AC}$ . Write the number 2 in the field marked with that point.

#### **TEAM 1 - Hint**

6. Given the points A(0,5), B(3,4), C(1,2), determine the point D so that vector  $\overrightarrow{AD}$  is equal to the vector  $\overrightarrow{AB} + \overrightarrow{AC}$ . Write the number 2 in the field marked with that point.

# TEAM 1 - Hint

7. Given the points A(4,4), B(3,8) and C(0,4), determine the point D so that  $\overrightarrow{AB}$  and  $\overrightarrow{CD}$  are opposite vectors. Write the number 2 in the field marked with the point D.

#### TEAM 1 - Hint

8. Given the points A(7,6), B(3,6) and C(1,8), determine the point D so that  $\overrightarrow{CD}$  is vector of the same direction and orientation as the vector  $\overrightarrow{BA}$ , but two times shorter than the vector  $\overrightarrow{BA}$ . Write the number 5 in the field marked with the point D.

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## TEAM 2 - Hint

1. The abscissa of the point is the smallest odd natural number, and the ordinate is equal to the abscissa. Enter value 7 in the field marked with that point.

## **TEAM 2 - Hint**

2. The abscissa of the point is the smallest natural number divisible by 3, and the ordinate is 2 times greater than the abscissa. In the field marked with that point, write the sum of the ordinate and abscissa.

## **TEAM 2 - Hint**

3. Given the points A(5,5), B(4,1) and C(4,5), determine the point D so that vectors  $\overrightarrow{AB}$  and  $\overrightarrow{CD}$  are equal. Write the number 6 in the field marked with the point D.

## TEAM 2 - Hint

4. Given the points A(3,5), B(1,7) and C(4,5), determine the point D so that vectors  $\overrightarrow{AB}$  and  $\overrightarrow{CD}$  are equal. Write the number 4 in the field marked with the point D.

## TEAM 2 - Hint

5. Given the points A(1,5), B(1,8), C(4,3), determine the point D so that vector  $\overrightarrow{AD}$  is equal to the vector  $\overrightarrow{AB} + \overrightarrow{AC}$ . Write the number 1 in the field marked with the point D.

## TEAM 2 - Hint

6. Given the points A(3,1), B(4,4) and C(0,5), determine the point D so that  $\overrightarrow{AB}$  and  $\overrightarrow{DC}$  are opposite vectors. Write the number 3 in the field marked with the point D.

#### **TEAM 2 - Hint**

7. Given the points A(6,4), B(2,4) and C(6,5), determine the point D so that  $\overrightarrow{AB}$  is vector of the same direction and orientation as the vector  $\overrightarrow{CD}$ , but two times longer than the vector  $\overrightarrow{CD}$ . Write the number 3 in the field marked with the point D.

#### TEAM 2 - Hint

8. Given the points A(3,1), B(3,3) and C(0,1), determine the point D so that  $\overrightarrow{DC}$  is vector of the same direction and the same orientation as the vector  $\overrightarrow{BA}$ , but two times longer than  $\overrightarrow{BA}$ . Write the number 6 in the field marked with the point D.

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# TEAM 3 - Hint

1. In the field marked with the point (1,5), enter the abscissa of that point.

## TEAM 3 - Hint

2. In the field marked with (8,7), enter the difference between abscissa and ordinate.

# TEAM 3 - Hint

3. Given the points A(1,7), B(5,6) and C(4,5), determine the point D so that vectors  $\overrightarrow{AB}$  and  $\overrightarrow{CD}$  are equal. Write the number 6 in the field marked with the point D.

## TEAM 3 - Hint

4. Given the points A(8,8), B(4,4) and C(2,3), determine the point D so that vectors  $\overrightarrow{AD}$  and  $\overrightarrow{BC}$  are equal. Write the number 2 in the field marked with the point D.

#### TEAM 3 - Hint

5. Given the points A(2,8), B(6,8), C(2,5), determine the point D so that vector  $\overrightarrow{AD}$  is equal to the vector  $\overrightarrow{AB} + \overrightarrow{AC}$ . Write the number 4 in the field marked with the point D.

#### TEAM 3 - Hint

6. Given the points A(2,3), B(8,5) and C(4,6), determine the point D so that  $\overrightarrow{AD}$  and  $\overrightarrow{BC}$  are opposite vectors. Write the number 7 in the field marked with the point D.

#### **TEAM 3 - Hint**

7. Given the points A(3,7), B(3,5) and C(0,2), determine the point D so that  $\overrightarrow{DC}$  is vector of same direction as  $\overrightarrow{BA}$ , different orientation than  $\overrightarrow{BA}$  and two times shorter than the vector  $\overrightarrow{BA}$ . Write the number 2 in the field marked with the point D.

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#### **TEAM 4 - Hint**

1. The abscissa and ordinate of a point are equal numbers that add up to 10. In the field marked with that point, enter the number that is the abscissa of that point.

## TEAM 4 - Hint

2. In the filed marked with (6,0), enter the smallest natural number divisible with 5.

#### TEAM 4 - Hint

3. Given the points A(0,6), B(4,5) and C(0,3), determine the point D so that vectors  $\overrightarrow{AB}$  and  $\overrightarrow{CD}$  are equal. Write the number 5 in the field marked with the point D.

## TEAM 4 - Hint

4. Given the points A(1,2), B(6,7) and C(5,4), determine the point D so that vectors  $\overrightarrow{AD}$  and  $\overrightarrow{CB}$  are equal. Write the number 9 in the field marked with the point D.

#### TEAM 4 - Hint

5. Given the points A(7,2), B(5,1), C(4,4), determine the point D so that vector  $\overrightarrow{AD}$  is equal to the vector  $\overrightarrow{AB} + \overrightarrow{AC}$ . Na polje označeno tom točkom upiši broj 7.

## TEAM 4 - Hint

6. Given the points A(2,5), B(7,7) and C(3,1), determine the point D so that  $\overrightarrow{AC}$  and  $\overrightarrow{DB}$  are opposite vectors. Write the number 5 in the field marked with the point D.

#### **TEAM 4 - Hint**

7. Given the points A(2,3), B(2,1) and C(0,6), determine the point D so that  $\overrightarrow{AB}$  is vector of same direction as  $\overrightarrow{CD}$ , different orientation than  $\overrightarrow{CD}$  and two times longer than  $\overrightarrow{CD}$ . Write the number 9 in the field marked with the point D.

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#### TEAM 5 - Hint

1. The abscissa of the point is a number that is 5 times greater than the smallest odd natural number, and the ordinate is 0. Write the smallest odd natural number in the field marked with that point.

## TEAM 5 - Hint

2. The abscissa of the point is the number of days in the week, and the ordinate is 1 less than the abscissa. Enter number 5 in the field marked with that point.

# TEAM 5 - Hint

3. Given the points A(8,1), B(2,1) and C(2,6), determine the point D so that vectors  $\overrightarrow{AB}$  and  $\overrightarrow{DC}$  are equal. Write the number 4 in the field marked with the point D.

## TEAM 5 - Hint

4. Given the points A(4,2), B(3,8) and C(7,4), determine the point D so that vectors  $\overrightarrow{AC}$  and  $\overrightarrow{DB}$  are equal. Write the number 7 in the field marked with the point D.

## TEAM 5 - Hint

5. Given the points A(3,4), B(4,1), C(6,3), determine the point D so that vector  $\overrightarrow{AD}$  is equal to the vector  $\overrightarrow{AB} + \overrightarrow{AC}$ . Write the number 4 in the field marked with the point D.

## TEAM 5 - Hint

6. Given the points A(3,5), B(1,3) and C(2,4), determine the point D so that  $\overrightarrow{BA}$  and  $\overrightarrow{CD}$  are opposite vectors. Write the number 8 in the field marked with the point D.

# TEAM 5 - Hint

7. Given the points A(1,5), B(1,3) and C(7,4), determine the point D so that  $\overrightarrow{DC}$  is vector of the same direction and the same orientation as the vector  $\overrightarrow{AB}$ , but two times longer than the vector  $\overrightarrow{AB}$ . Write the number 7 in the field marked with the point D.

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