The Great Art Gallery Angle Adventure: Help Palette Pete and Canvas Clara Solve the Mystery of the Twisted Paintings

Math **Grade 4** **Art Theme**

🎨 **Help these artistic explorers navigate through the gallery by solving angle problems and completing their creative quests!**

NAME _____

DATE _____

SCORE _____ / 8

1

Palette Pete is hanging a portrait in the gallery. He leans his paintbrush against the wall to measure angles. The brush makes a 35-degree angle with the floor. If he rotates it clockwise by 25 degrees, what angle does the brush now make with the floor?

2

Canvas Clara is designing a stained glass window with colorful panes. She creates four identical triangular pieces of glass, each with angles measuring 50 degrees, 60 degrees, and 70 degrees. She wants to arrange them around a point. Will the angles fit perfectly around one point (360 degrees total)? What is the sum of one triangle's angles?

3

In the sculpture garden, a bronze statue's arm points toward the north. Palette Pete rotates the statue's arm 90 degrees to the right. Then Canvas Clara rotates it another 45 degrees to the right. How many degrees total has the arm rotated from its original position?

4

The art gallery has four corner paintings arranged in a square room. Each corner painting has a frame that creates a right angle (90 degrees). If Canvas Clara wants to place a spotlight that splits one of these corner angles in half, what angle will be on each side of the spotlight beam?

5

Palette Pete is creating a mosaic with triangular tiles. Each tile in his pattern has three angles. Two of the angles measure 55 degrees and 65 degrees. What must the third angle measure to complete the triangle?

6

In the main gallery hall, Canvas Clara positions three paintings on a wall. The angle between the first and second painting is 40 degrees. The angle between the second and third painting is 50 degrees. What is the total angle between the first and third paintings?

7

Palette Pete discovers an old compass rose artwork on the gallery floor. North is at 0 degrees, East is at 90 degrees, South is at 180 degrees, and West is at 270 degrees. If Pete stands facing South and turns 90 degrees clockwise, which direction is he now facing?

8

Canvas Clara is arranging paint brushes in a circular holder shaped like a wheel. She places brushes at 12 o'clock (0 degrees), 3 o'clock (90 degrees), 6 o'clock (180 degrees), and 9 o'clock (270 degrees). What angle is between any two adjacent brushes?

Answer Key

Math   Grade 4   For Parents and Teachers

1

Palette Pete is hanging a portrait in the gallery. He leans his paintbrush against the wall to measure angles. The brush makes a 35-degree angle with the floor. If he rotates it clockwise by 25 degrees, what angle does the brush now make with the floor?

ANSWER

60 degrees

2

Canvas Clara is designing a stained glass window with colorful panes. She creates four identical triangular pieces of glass, each with angles measuring 50 degrees, 60 degrees, and 70 degrees. She wants to arrange them around a point. Will the angles fit perfectly around one point (360 degrees total)? What is the sum of one triangle's angles?

ANSWER

180 degrees

3

In the sculpture garden, a bronze statue's arm points toward the north. Palette Pete rotates the statue's arm 90 degrees to the right. Then Canvas Clara rotates it another 45 degrees to the right. How many degrees total has the arm rotated from its original position?

ANSWER

135 degrees

4

The art gallery has four corner paintings arranged in a square room. Each corner painting has a frame that creates a right angle (90 degrees). If Canvas Clara wants to place a spotlight that splits one of these corner angles in half, what angle will be on each side of the spotlight beam?

ANSWER

45 degrees

5

Palette Pete is creating a mosaic with triangular tiles. Each tile in his pattern has three angles. Two of the angles measure 55 degrees and 65 degrees. What must the third angle measure to complete the triangle?

ANSWER

60 degrees

6

In the main gallery hall, Canvas Clara positions three paintings on a wall. The angle between the first and second painting is 40 degrees. The angle between the second and third painting is 50 degrees. What is the total angle between the first and third paintings?

ANSWER

90 degrees

7

Palette Pete discovers an old compass rose artwork on the gallery floor. North is at 0 degrees, East is at 90 degrees, South is at 180 degrees, and West is at 270 degrees. If Pete stands facing South and turns 90 degrees clockwise, which direction is he now facing?

ANSWER

West (270 degrees)

8

Canvas Clara is arranging paint brushes in a circular holder shaped like a wheel. She places brushes at 12 o'clock (0 degrees), 3 o'clock (90 degrees), 6 o'clock (180 degrees), and 9 o'clock (270 degrees). What angle is between any two adjacent brushes?

ANSWER

90 degrees