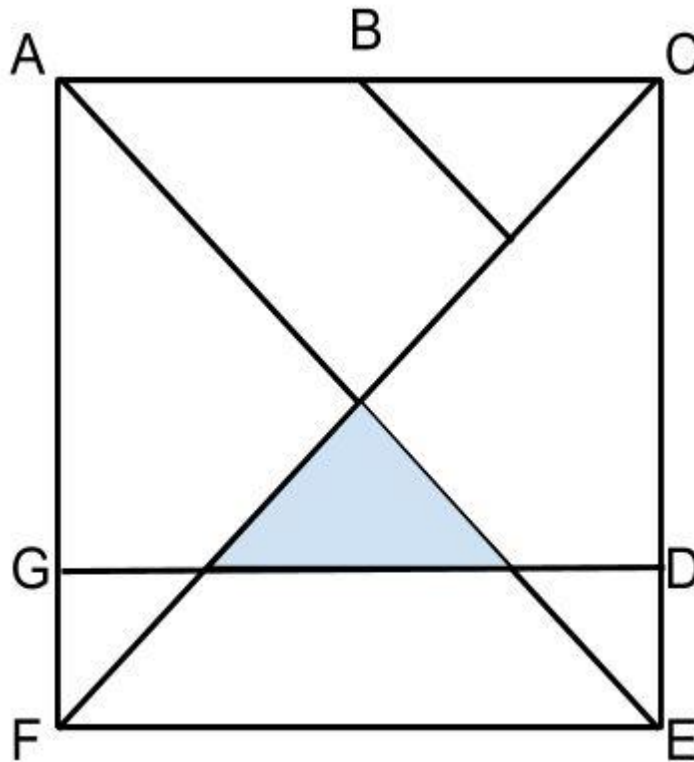


Designing Windows Anchor Papers

Designing Windows

Marisol designs windows. She has been asked to create different colored glass for each polygon within the stained glass window below. Marisol needs to measure each angle, but her protractor is broken. She recorded the following facts to help her find the angle measurements:

- Polygon ACEF is a square
- Polygon DEFG is a rectangle



1. Without using a protractor, determine and label the angle measurements for the shaded shape. Describe the strategy you used to determine the angle measurements of the shaded shape.

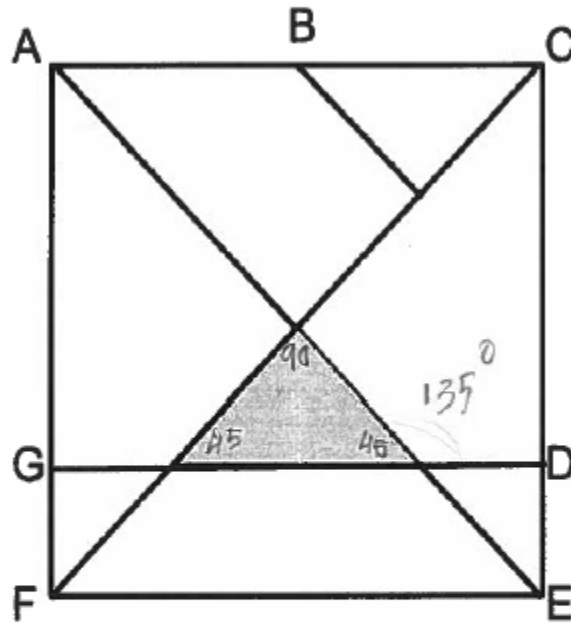
2. Marisol was able to find 16 angle measurements for the window. Using a strategy, label as many angles as possible. Be prepared to prove your thinking.

Designing Windows Anchor Papers

Student A

Marisol designs windows. She has been asked to create different colored glass for each polygon within the stained glass window below. Marisol needs to measure each angle, but her protractor is broken. She recorded the following facts to help her find the angle measurements:

- Polygon ACEF is a square
- Polygon DEFG is a rectangle



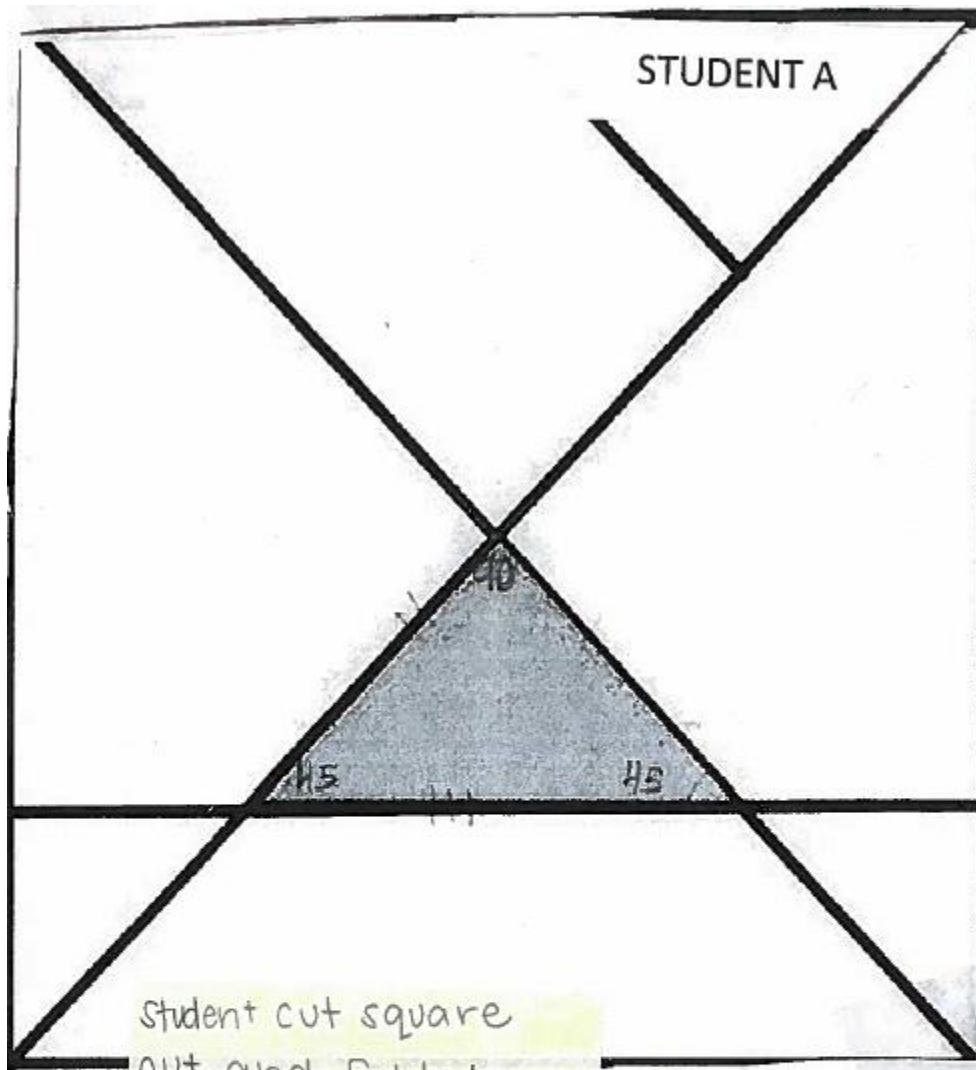
1. Without using a protractor, determine and label the angle measurements for the shaded shape. Describe the strategy you used to determine the angle measurements of the shaded shape.

$$90 + 45 + 45 = 180$$

2. Marisol was able to find 16 angle measurements for the window. Using a strategy, label as many angles as possible. Be prepared to prove your thinking.

Designing Windows Anchor Papers

Student A Continued



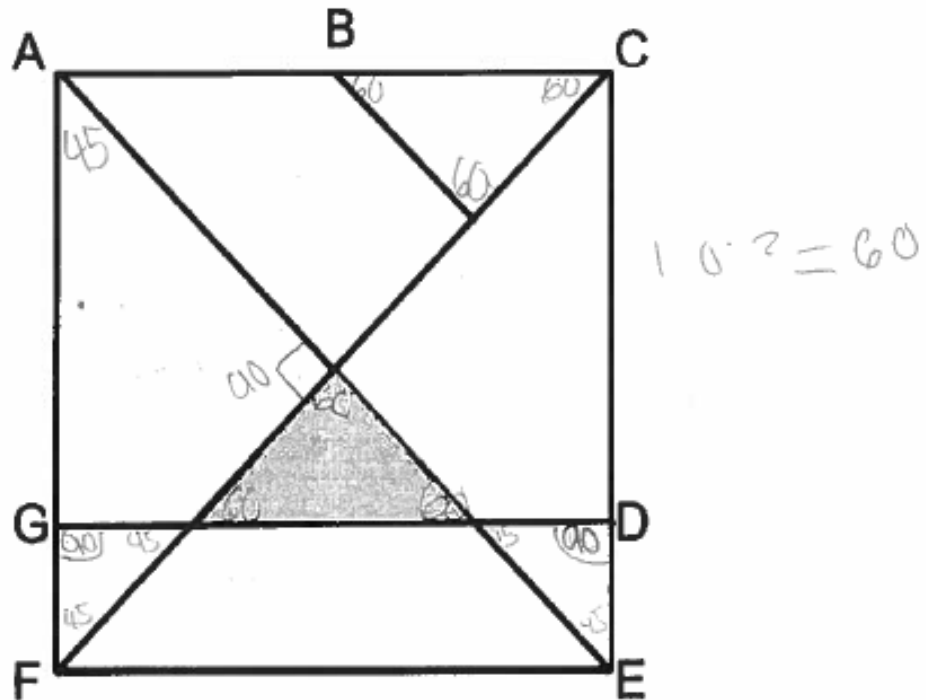
Student cut square out and folded along line segment \overline{CF} . Student matched fold to corner of his desk.
S: "This is how I know it's a 90° angle. Now I can find the other angles."

Designing Windows Anchor Papers

Student B

Marisol designs windows. She has been asked to create different colored glass for each polygon within the stained glass window below. Marisol needs to measure each angle, but her protractor is broken. She recorded the following facts to help her find the angle measurements:

- Polygon ACEF is a square
- Polygon DEFG is a rectangle

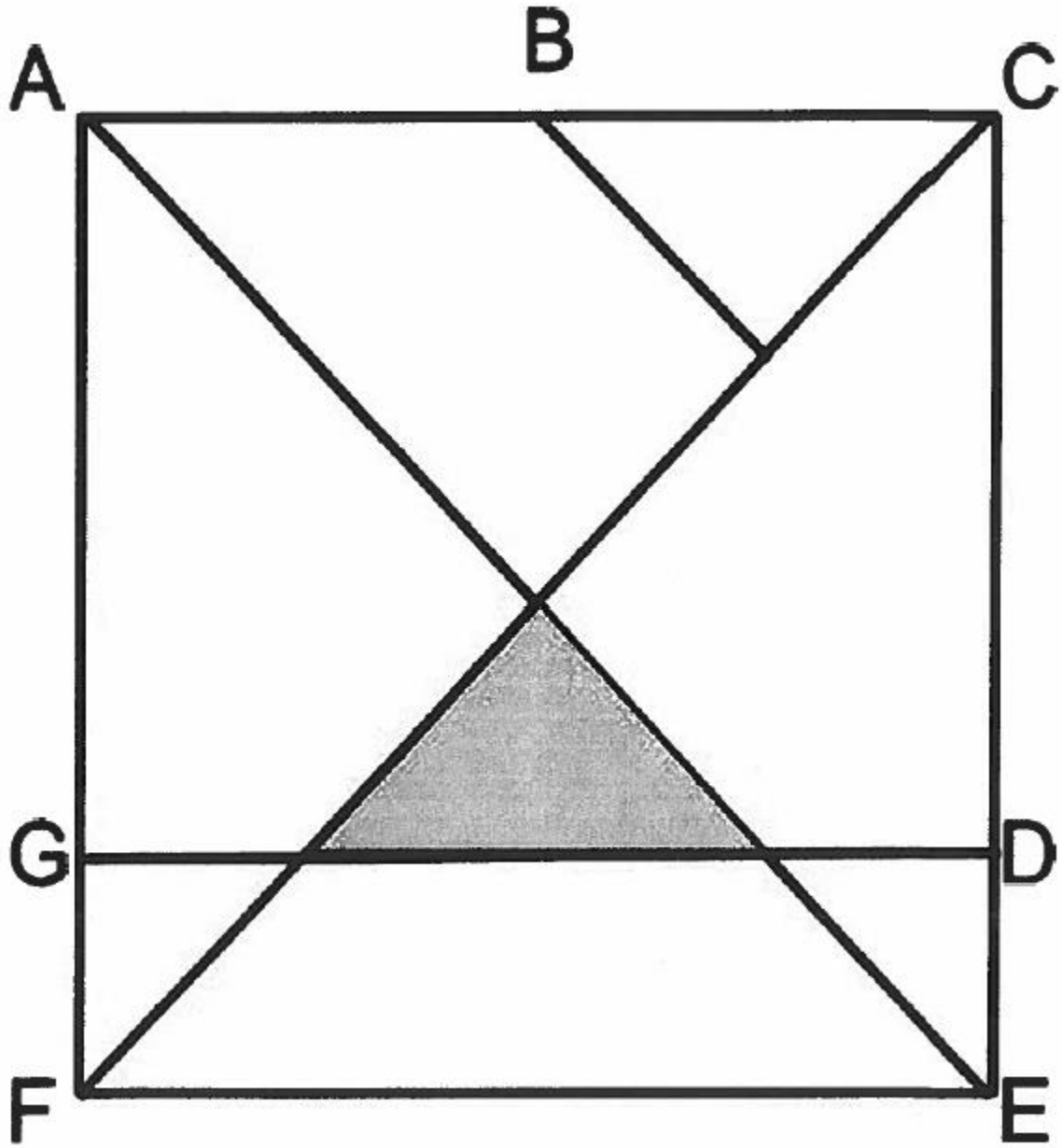


1. Without using a protractor, determine and label the angle measurements for the shaded shape. Describe the strategy you used to determine the angle measurements of the shaded shape.

2. Marisol was able to find 16 angle measurements for the window. Using a strategy, label as many angles as possible. Be prepared to prove your thinking.

Designing Windows Anchor Papers

Student B continued

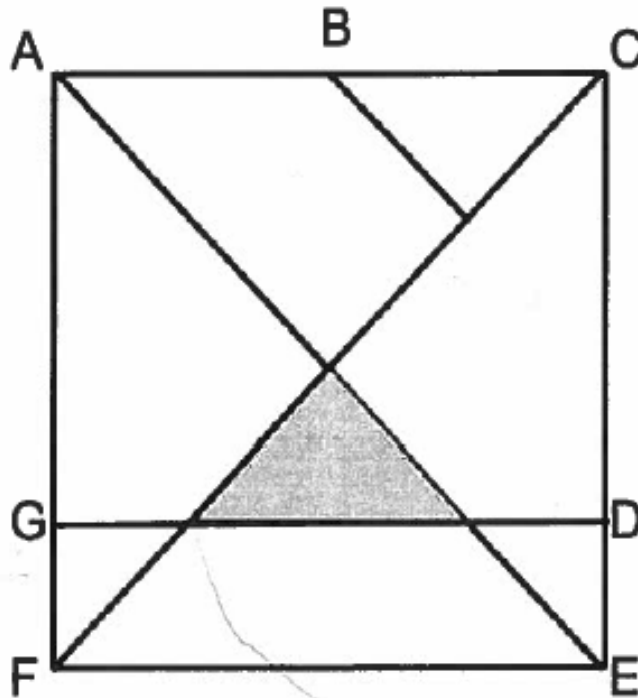


Designing Windows Anchor Papers

Student C

Marisol designs windows. She has been asked to create different colored glass for each polygon within the stained glass window below. Marisol needs to measure each angle, but her protractor is broken. She recorded the following facts to help her find the angle measurements:

- Polygon ACEF is a square
- Polygon DEFG is a rectangle



1. Without using a protractor, determine and label the angle measurements for the shaded shape. Describe the strategy you used to determine the angle measurements of the shaded shape.

$$90 - 45 \times 2 = 180$$

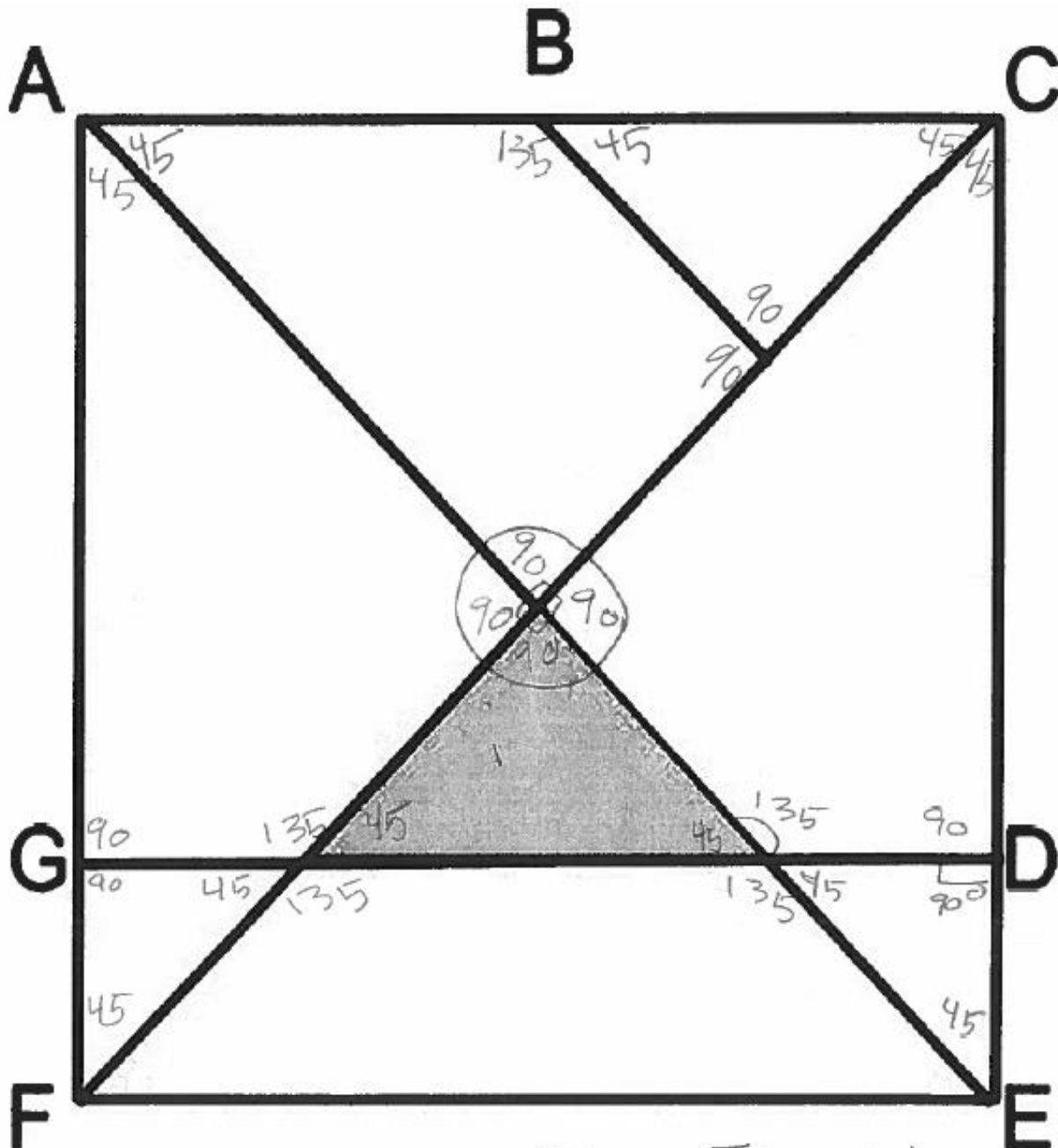
2. Marisol was able to find 16 angle measurements for the window. Using a strategy, label as many angles as possible. Be prepared to prove your thinking.

28 Angles

049

Designing Windows Anchor Papers

Student C Continued



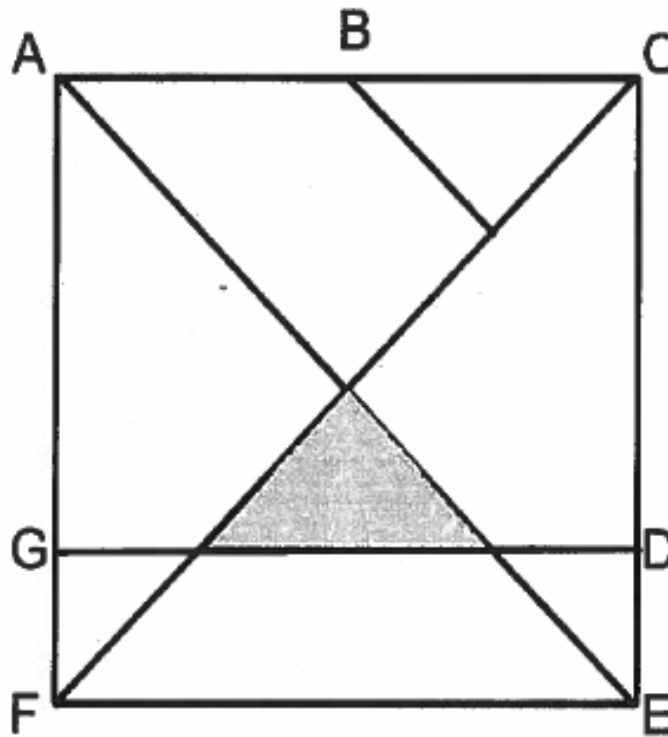
S: I know that where \overline{AE} and \overline{CF} meet is like a circle. So, one side is half a circle, like a protractor 180° , and the other side is another protractor 180° , so all equal 360° . That's why I labeled these 90° . They all make a circle.

Designing Windows Anchor Papers

Student D

Marisol designs windows. She has been asked to create different colored glass for each polygon within the stained glass window below. Marisol needs to measure each angle, but her protractor is broken. She recorded the following facts to help her find the angle measurements:

- Polygon ACEF is a square
- Polygon DEFG is a rectangle



1. Without using a protractor, determine and label the angle measurements for the shaded shape. Describe the strategy you used to determine the angle measurements of the shaded shape.

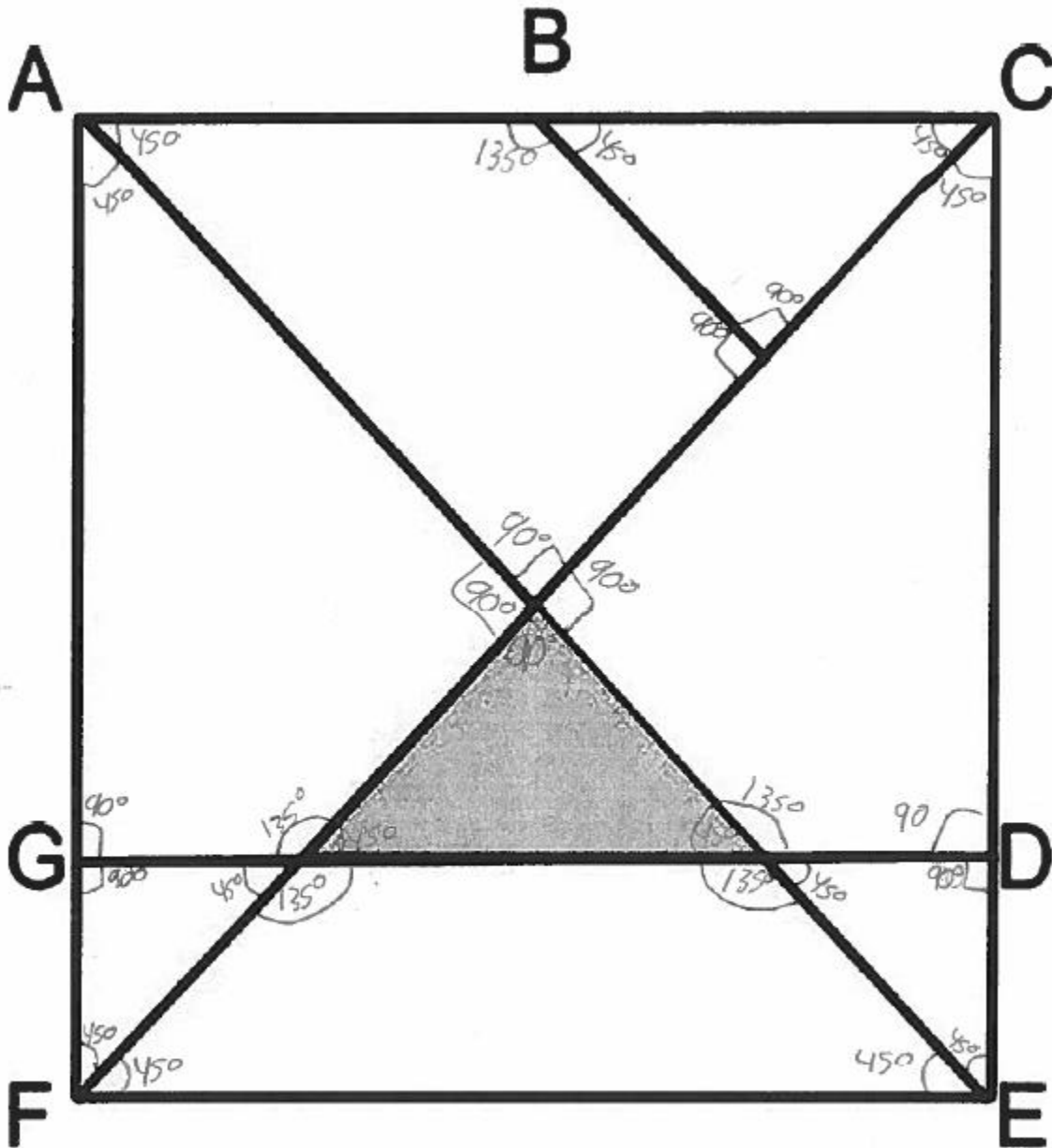
$$90 + 45 + 45 = 180$$

2. Marisol was able to find 16 angle measurements for the window. Using a strategy, label as many angles as possible. Be prepared to prove your thinking.

28 angles

Designing Windows Anchor Papers

Student D Continued



Designing Windows Anchor Papers

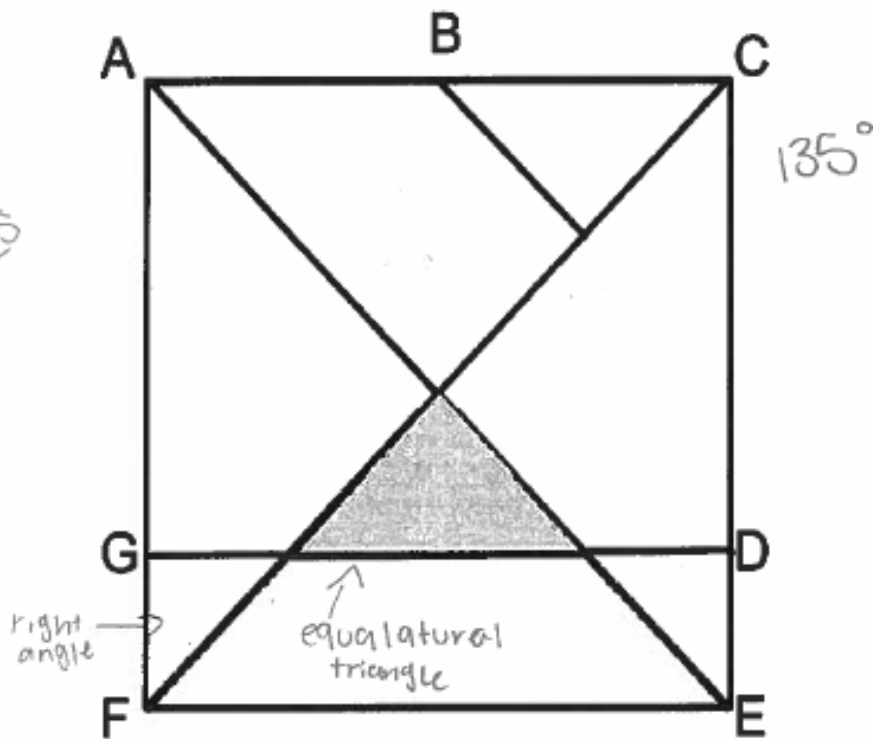
Student E

Marisol designs windows. She has been asked to create different colored glass for each polygon within the stained glass window below. Marisol needs to measure each angle, but her protractor is broken. She recorded the following facts to help her find the angle measurements:

- Polygon ACEF is a square
- Polygon DEFG is a rectangle

$$180 \div 3 = 60^\circ$$

$$135 + 20 + 25 = 180^\circ$$

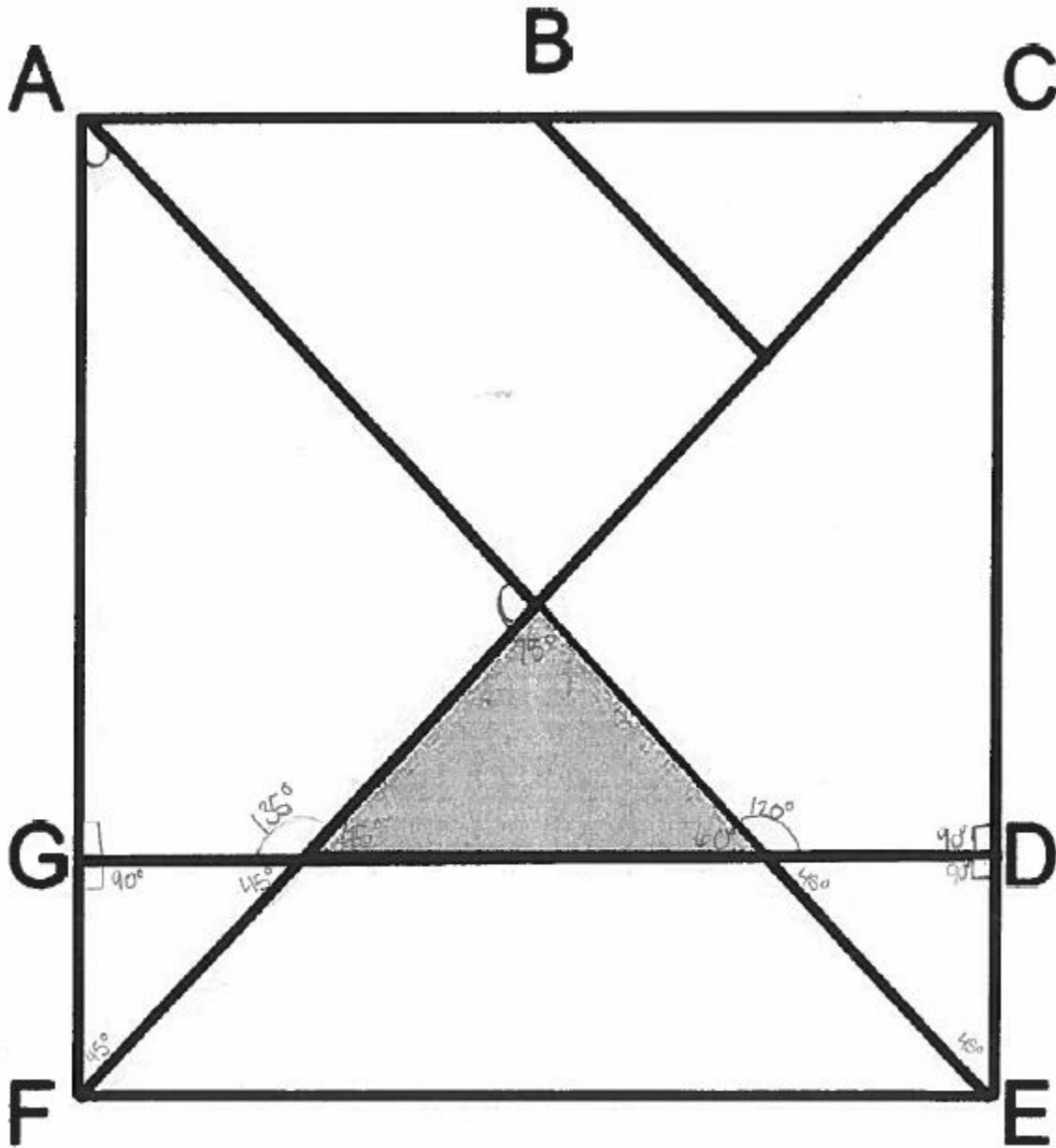


1. Without using a protractor, determine and label the angle measurements for the shaded shape. Describe the strategy you used to determine the angle measurements of the shaded shape.

2. Marisol was able to find 16 angle measurements for the window. Using a strategy, label as many angles as possible. Be prepared to prove your thinking.

Designing Windows Anchor Papers

Student E Continued

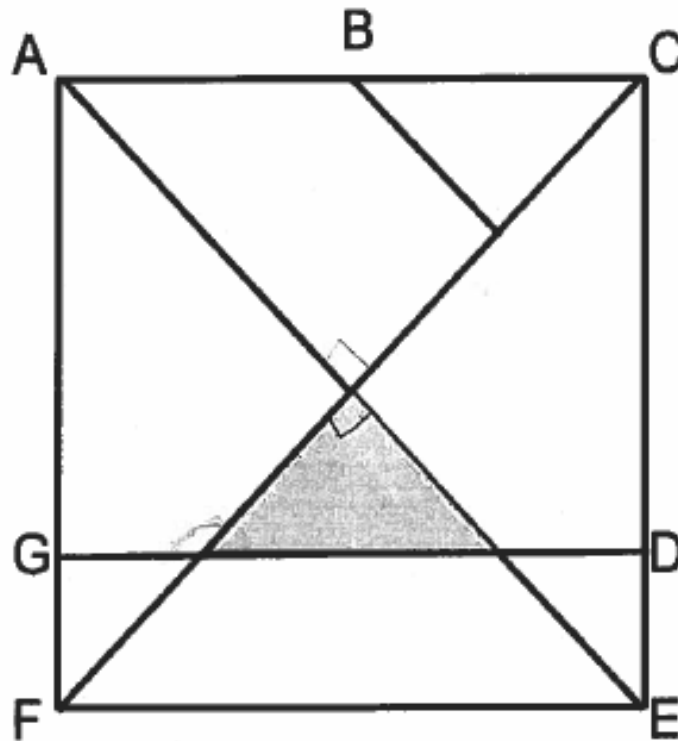


Designing Windows Anchor Papers

Student F

Marisol designs windows. She has been asked to create different colored glass for each polygon within the stained glass window below. Marisol needs to measure each angle, but her protractor is broken. She recorded the following facts to help her find the angle measurements:

- Polygon ACEF is a square
- Polygon DEFG is a rectangle



1. Without using a protractor, determine and label the angle measurements for the shaded shape. Describe the strategy you used to determine the angle measurements of the shaded shape.

$$40 + 45 + 45 = 180$$

2. Marisol was able to find 16 angle measurements for the window. Using a strategy, label as many angles as possible. Be prepared to prove your thinking.

28 angles

Designing Windows Anchor Papers

Student F Continued

