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.
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
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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.
Student cut square out and folded along line segment. 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.
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
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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.
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Student B continued

[Diagram of a square with diagonal lines and a shaded triangle]
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.
   \[ 90 \times 45 \times 2 = 180 \]

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.
   \[ 28 \text{ Angles} \]
S: I know that where $AE$ and $CF$ meet is like a circle. So, one side is half a circle, like a protractor $180^\circ$, and the other side is another protractor $180^\circ$ so all equal $360^\circ$. That's why I labeled these $90^\circ$. They all make a circle.
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

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.
Student E Continued
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

![Diagram of polygon ABCDE]

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