

Reasoning and Problem Solving

Step 2: Compare and Order Angles

National Curriculum Objectives:

Mathematics Year 4: (4G4) [Identify acute and obtuse angles and compare and order angles up to two right angles by size](#)

Mathematics Year 4: (4G2a) [Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Identify which of 2 shapes contains the largest or smallest angle. Angles presented on a horizontal base line.

Expected Identify which of 3 shapes contains the largest or smallest angle. All angles including a horizontal or vertical side.

Greater Depth Identify which of 4 complex shapes contains the largest or smallest angle. Angles in any orientation.

Questions 2, 5 and 8 (Reasoning)

Developing Explain whether a statement is correct. Includes 2 angles to compare.

Expected Explain whether a statement is correct. Includes 3 angles to compare.

Greater Depth Explain whether a statement is correct. Includes 4 angles to compare with more than one possible answer.

Questions 3, 6 and 9 (Problem Solving)

Developing Work out if 3 different pairs of lines, when matched, form a set of angles in ascending or descending size order. Up to 3 angles per question, presented on a horizontal base line.

Expected Work out if 4 different pairs of lines, when matched, form a set of angles in ascending or descending size order. Up to 4 angles per question. All angles including a horizontal or vertical side.

Greater Depth Work out if 4 different pairs of lines, when matched, form a set of angles in ascending or descending size order. Up to 4 angles per question. Angles in any orientation.

More [Year 4 Properties of Shape](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Compare and Order Angles

Compare and Order Angles

1a. Which of these shapes contains the largest angle?



PS

1b. Which of these shapes contains the smallest angle?



PS

2a. Ali is discussing angles.



I think that an angle of 45° is smaller than an obtuse angle.

2b. Meg is discussing angles.



I think that an angle of 110° is smaller than a right angle.

Is Ali correct? Explain your answer.



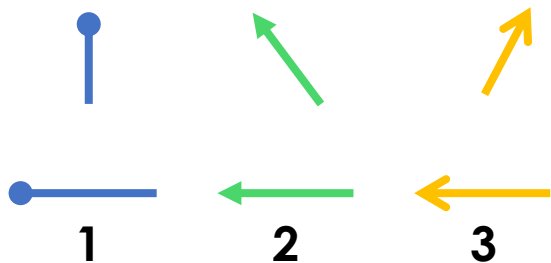
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Is Meg correct? Explain your answer.



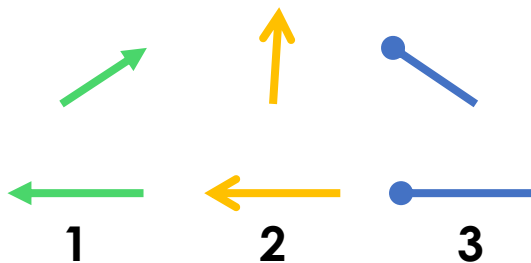
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3a. If you join together the end points of the matching lines below, do they make 3 angles in order from smallest to largest? Be sure to compare the smallest side of each angle created.



PS

3b. If you join together the end points of the matching lines below, do they make 3 angles in order from largest to smallest? Be sure to compare the smallest side of each angle created.

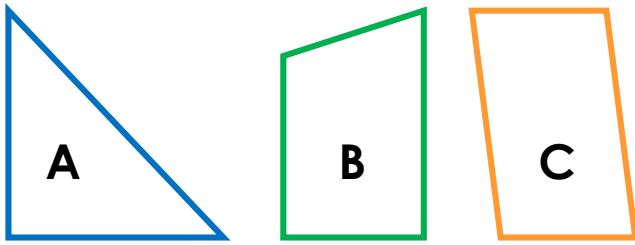


PS

Compare and Order Angles

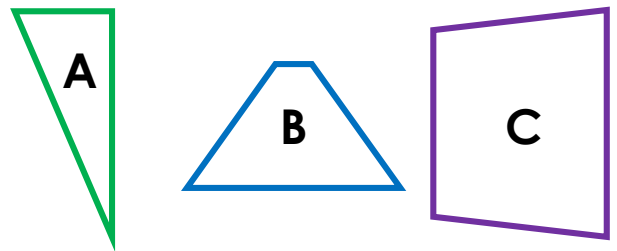
Compare and Order Angles

4a. Which of these shapes contains the smallest angle?



PS

4b. Which of these shapes contains the largest angle?



PS

5a. Sol is discussing angles.



Sol

I have 3 angles. One angle is acute, one is a right angle and the other is 170° . I think that the right angle is the smallest angle.

Is Sol correct? Explain your answer.



R

5b. Zoe is discussing angles.



Zoe

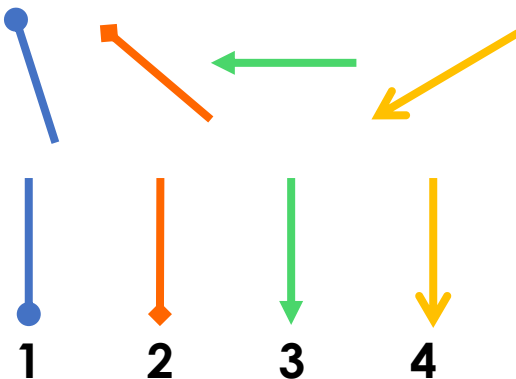
I have 3 angles. One is 89° , one is a right angle and the other is obtuse. I think that the obtuse angle is the smallest angle.

Is Zoe correct? Explain your answer.



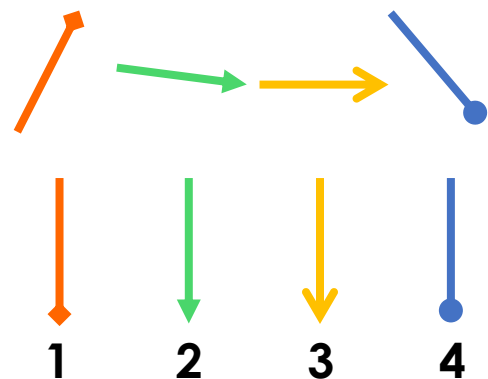
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6a. If you join together the end points of the matching lines below, do they make 4 angles in order from largest to smallest? Be sure to compare the smallest side of each angle created.



PS

6b. If you join together the end points of the matching lines below, do they make 4 angles in order from smallest to largest? Be sure to compare the smallest side of each angle created.

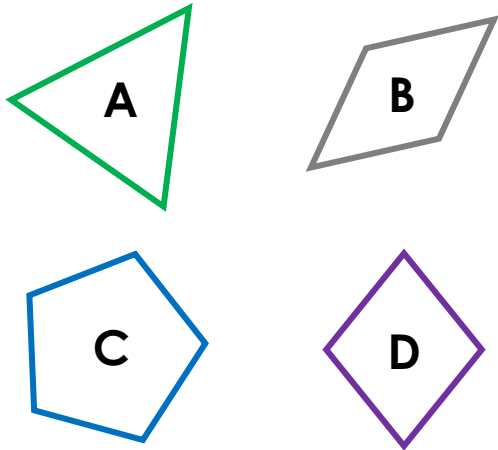


PS

Compare and Order Angles

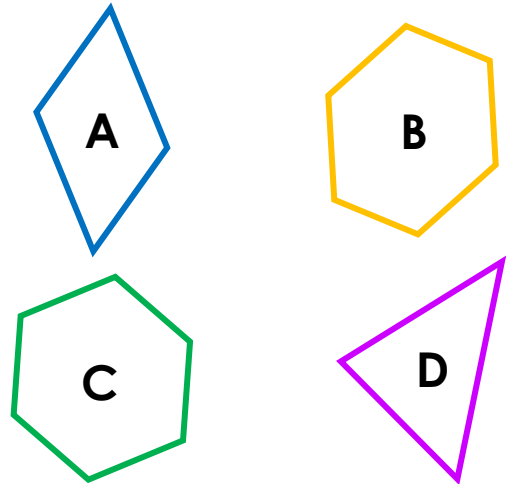
Compare and Order Angles

7a. Which of these shapes contains the largest angle?



PS

7b. Which of these shapes contains the smallest angle?



PS

8a. Zane is discussing angles.



I have 4 angles. One angle is 135° , one is obtuse, one is a right angle and the other is 73° . I think that the 135° angle is the largest angle.

Is Zane correct? Explain your answer.



R

8b. Hal is discussing angles.



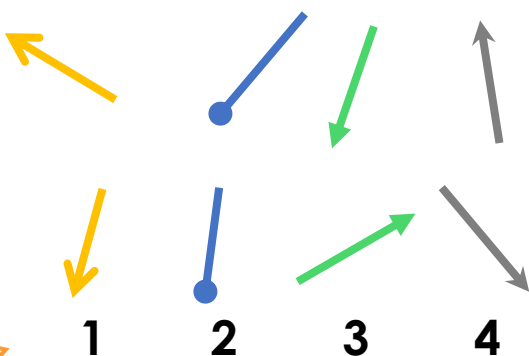
I have 4 angles. One is obtuse, one is 90° , one is acute and one is 25° . The 90° angle must be the 2nd largest angle.

Is Hal correct? Explain your answer.



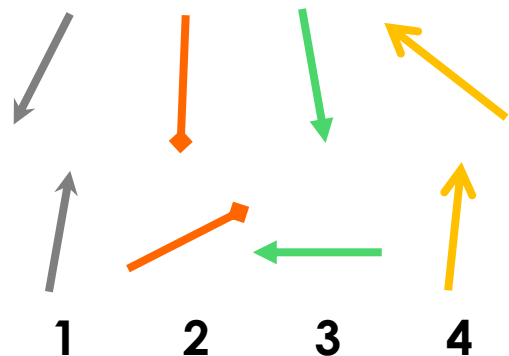
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9a. If you join together the end points of the matching lines below, do they make 4 angles in order from smallest to largest? Be sure to compare the smallest side of each angle created.



PS

9b. If you join together the end points of the matching lines below, do they make 4 angles in order from largest to smallest? Be sure to compare the smallest side of each angle created.



PS

Reasoning and Problem Solving Compare and Order Angles

Developing

- 1a. Shape A
- 2a. Ali is correct because an obtuse angle is more than 90° but less than 180° .
- 3a. No, the correct order would be 2, 1, 3.

Expected

- 4a. Shape A
- 5a. Sol is incorrect because an acute angle is smaller than a right angle.
- 6a. Yes, the angles are ordered correctly.

Greater Depth

- 7a. Shape B
- 8a. Zane might be correct but he doesn't know the exact size of the other obtuse angle which could be larger.
- 9a. No. The correct order would be 2, 1, 3, 4.

Reasoning and Problem Solving Compare and Order Angles

Developing

- 1b. Shape A
- 2b. Meg is incorrect because a right angle is 90° and 110° is larger.
- 3b. Yes, the angles are ordered correctly.

Expected

- 4b. Shape B
- 5b. Zoe is incorrect because the 89° angle is smaller than the right angle and an obtuse angle.
- 6b. No, the correct order would be 4, 2, 3, 1.

Greater Depth

- 7b. Shape D
- 8b. Hal is correct. The obtuse angle is the largest and the acute and 25° angles are less than 90° .
- 9b. Yes, the angles are ordered correctly.