

Reasoning and Problem Solving

Step 3: Compare Angles

National Curriculum Objectives:

Mathematics Year 3: (3G4a) [Recognise that angles are a property of a shape or a description of a turn](#)

Mathematics Year 3: (3G4b) [Identify right angles, recognise that two right angles make a half turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Draw a regular shape following criteria of one specified angle.

Expected Draw a regular or irregular shape with specified angles.

Greater Depth Draw an irregular shape with specified angles.

Questions 2, 5 and 8 (Problem Solving)

Developing Make a table to show how many of each type of angle are in regular shapes.

Expected Make a table to show how many of each type of angle are in regular and irregular shapes.

Greater Depth Make a table to show how many of each type of angle are in irregular and compound shapes.

Questions 3, 6 and 9 (Reasoning)

Developing Explain which statements about the angles in regular shapes are correct.

Expected Explain which statements about the angles in irregular shapes are correct.

Greater Depth Explain which statements about the angles in irregular and compound shapes are correct.

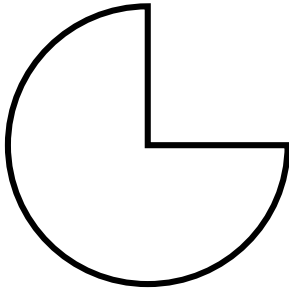
More [Year 3 Properties of Shapes](#) resources.

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

Compare Angles

1a. Draw a shape with...

- at least 1 right angle



90° angle cut out given for reference.

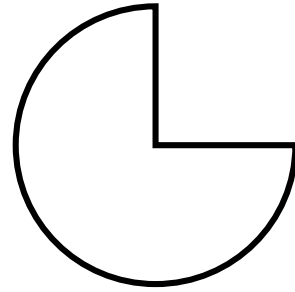


PS

Compare Angles

1b. Draw a shape with...

- at least 1 acute angle

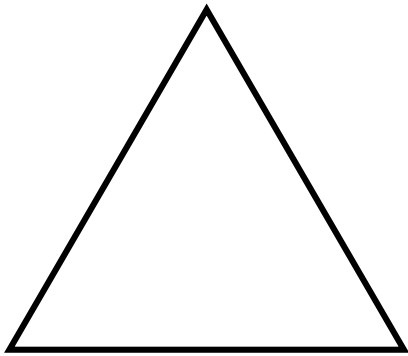


90° angle cut out given for reference.



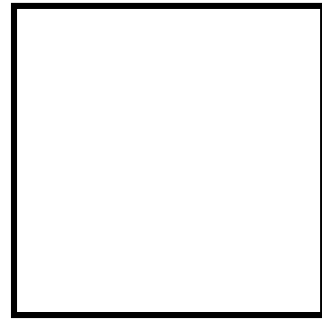
PS

2a. Make a table to show how many acute, obtuse and right angles are in this shape:



PS

2b. Make a table to show how many acute, obtuse and right angles are in this shape:



PS

3a. Year 3 have been asked to describe the angles in this shape:



Jason

It has 4 angles that look quite big so they must be obtuse.



Vicky

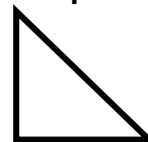
It has 4 right angles.

Who is correct? Explain how you know.



R

3b. Year 3 have been asked to describe the angles in this shape:



Carli

It has 3 angles so that means it has 1 of each type of angle.



Oscar

It has 1 right angle and 2 acute angles.

Who is correct? Explain how you know.

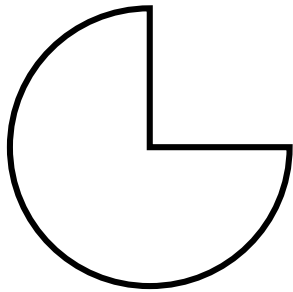


R

Compare Angles

4a. Draw a shape with...

- 5 obtuse angles



90° angle cut out given for reference.

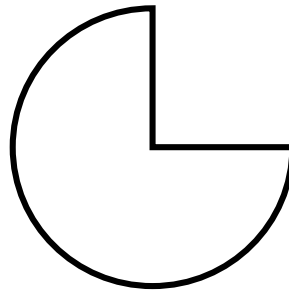


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Compare Angles

4b. Draw a shape with...

- 2 obtuse angles
- 2 acute angles

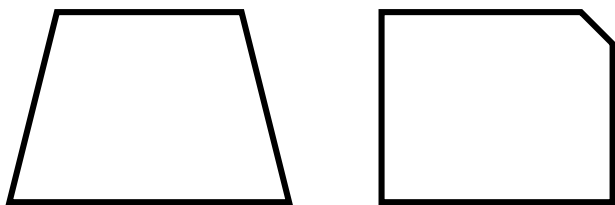


90° angle cut out given for reference.



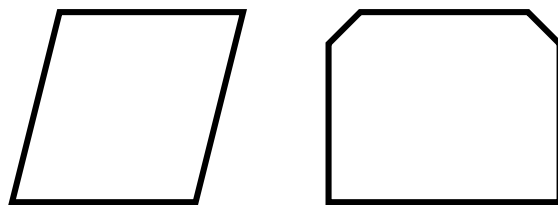
PS

5a. Make a table to show how many acute, obtuse and right angles are in both of these shapes:



PS

5b. Make a table to show how many acute, obtuse and right angles are in both of these shapes:



PS

6a. Year 3 have been asked to describe the angles in this shape:



Max

It has 6 angles inside that you could measure.



Emmy

It has two corners cut off, so it has 2 angles left.

Who is correct? Explain how you know.



R

6b. Year 3 have been asked to describe the angles in this shape:



Rosie

It has a corner cut out so it only has 3 angles inside.



Thomas

It has three right angles.

Who is correct? Explain how you know.

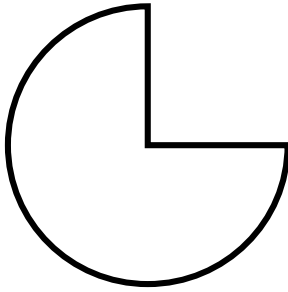


R

Compare Angles

7a. Draw an irregular shape with...

- 2 right angles
- 3 obtuse angles



90° angle cut out given for reference.

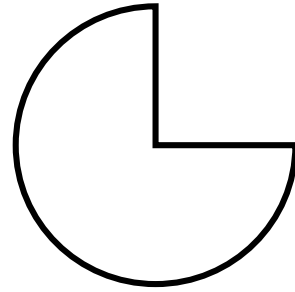


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Compare Angles

7b. Draw an irregular shape with...

- 3 right angles
- 2 obtuse angles

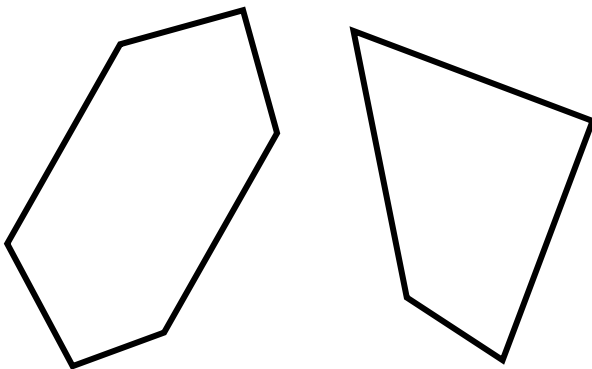


90° angle cut out given for reference.



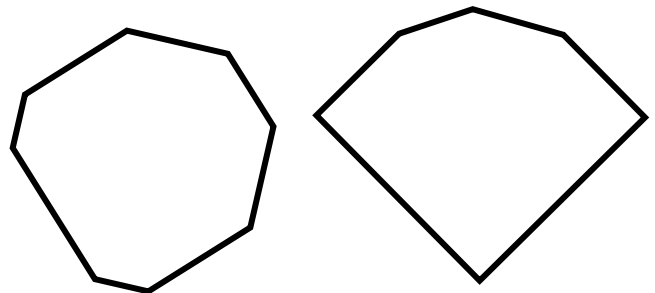
PS

8a. Make a table to show how many acute, obtuse and right angles are in both of these shapes:



PS

8b. Make a table to show how many acute, obtuse and right angles are in both of these shapes:



PS

9a. Year 3 have been asked to describe the angles in this shape:



Aisha

All of this shape's internal angles are right angles.



Scott

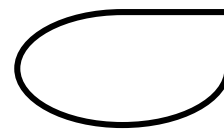
This shape has 3 right angles and two obtuse angles.

Who is correct? Explain how you know.



R

9b. Year 3 have been asked to describe the angles in this shape:



Levi

This shape has 1 side like a circle so it has no angles.



Louisa

This shape has one angle.

Who is correct? Explain how you know.



R

Reasoning and Problem Solving Compare Angles

Developing

1a. Various possible answers, for example:



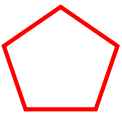
2a.

Right angles	0
Obtuse	0
Acute	3

3a. Vicky is correct because each angle is 90° in a rectangle.

Expected

4a. Various possible answers, for example:



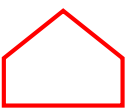
5a.

Right angles	3
Obtuse	4
Acute	2

6a. Max is correct because the shape has 6 corners altogether.

Greater Depth

7a. Various possible answers, for example:



8a.

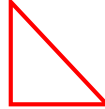
Right angles	2
Obtuse	6
Acute	2

9a. Scott is correct because the shape isn't a rectangle so it does not have four 90° angles.

Reasoning and Problem Solving Compare Angles

Developing

1b. Various possible answers, for example:



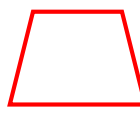
2b.

Right angles	4
Obtuse	0
Acute	0

3b. Oscar is correct because 2 of the angles are less than 90° .

Expected

4b. Various possible answers, for example:



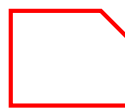
5b.

Right angles	2
Obtuse	6
Acute	2

6b. Thomas is correct because 3 of the angles measure 90° . The shape has 5 corners altogether.

Greater Depth

7b. Various possible answers, for example:



8b.

Right angles	3
Obtuse	11
Acute	0

9b. Louisa is correct because the shape has one corner which is a 90° angle.