Reasoning and Problem Solving
Step 3: Triangles

National Curriculum Objectives:

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 a type of triangle within a rectangular shape with 6 triangles. Most triangles presented with a horizontal base.
Expected Identify types of triangle within a rectangular shape with at least 10 triangles. Most triangles presented with a horizontal base.
Greater Depth Identify types of triangle within a shape. Triangles presented in different orientations and within other triangles.

Questions 2, 5 and 8 (Reasoning)
Developing Decide whether a statement describing the triangle within a logo is correct. Both triangles presented with a horizontal base.
Expected Decide whether a statement describing 3 triangles within a logo is correct. Most triangles presented with a horizontal base.
Greater Depth Decide whether a statement describing 3 triangles within a logo is correct. Triangles presented in different orientations, within other shapes.

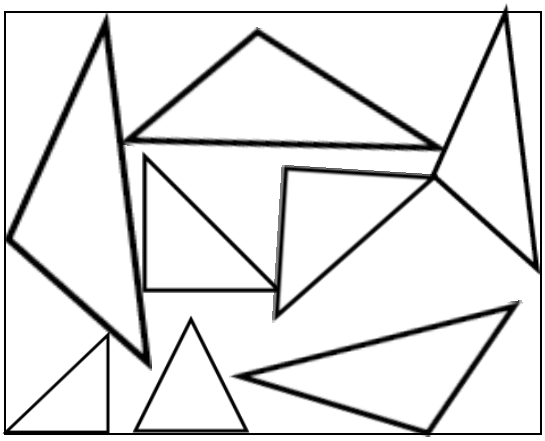
Questions 3, 6 and 9 (Reasoning)
Developing Determine which of 3 triangles is the odd one out and why. All triangles presented with a horizontal base.
Expected Determine which of 4 triangles is the odd one out and why. Most triangles presented with a horizontal base.
Greater Depth Determine which of 4 triangles is the odd one out and why. Triangles presented in different orientations, with some triangles presented in other shapes.

More Year 4 Properties of Shape resources.

Did you like this resource? Don't forget to review it on our website.

Triangles

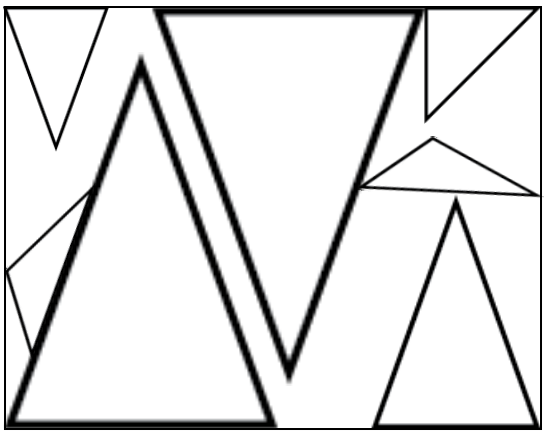
1a. Colour the right angled triangles in this image. Use a ruler to help.



D PS

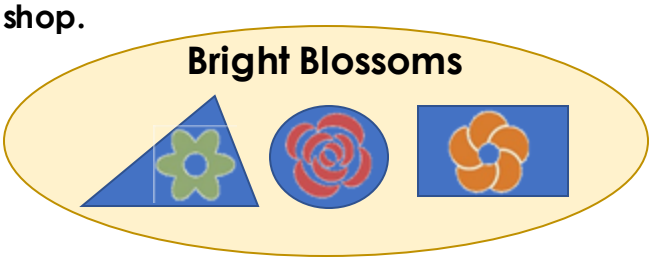
Triangles

1b. Colour the isosceles triangles in this image. Use a ruler to help.



D PS

2a. Della is designing a logo for her flower shop.



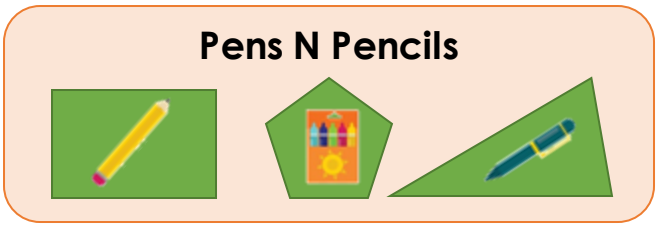
She says,

The logo includes a scalene triangle.

Is she correct? Explain your answer.

D R

2b. Marshall is designing a logo for a stationery stall he is setting up.



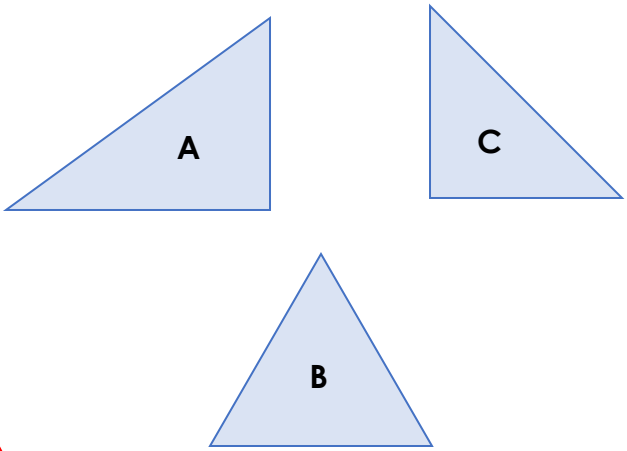
He says,

The logo includes a right angled triangle.

Is he correct? Explain your answer.

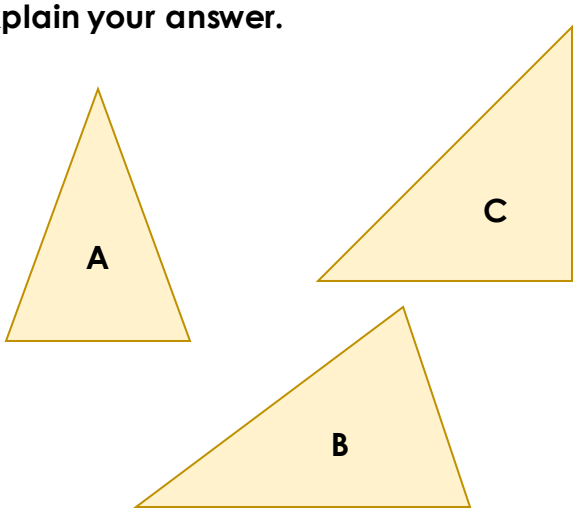
D R

3a. Which triangle is the odd one out? Explain your answer.



D R

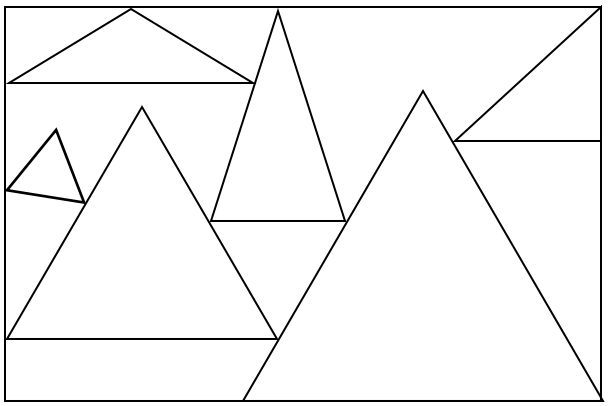
3b. Which triangle is the odd one out? Explain your answer.



D R

Triangles

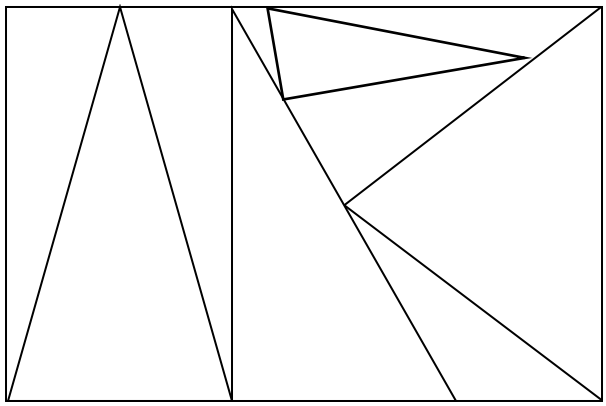
4a. Colour the triangles in this image which are equilateral. Use a ruler to help.



E PS

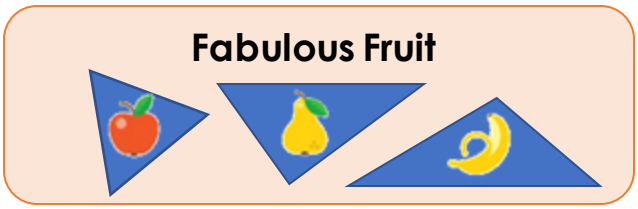
Triangles

4b. Colour the triangles in this image which are right angled triangles. Use a ruler to help.



E PS

5a. Kylie is designing a logo for a fruit stall she wants to run at her school.



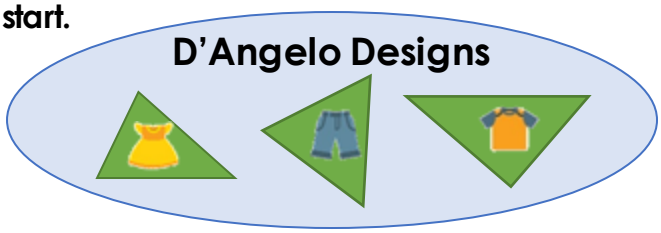
She says,

The logo includes only equilateral triangles.

Is she correct? Explain your answer.

E R

5b. D'Angelo is designing a logo for a handmade clothing shop he wants to start.



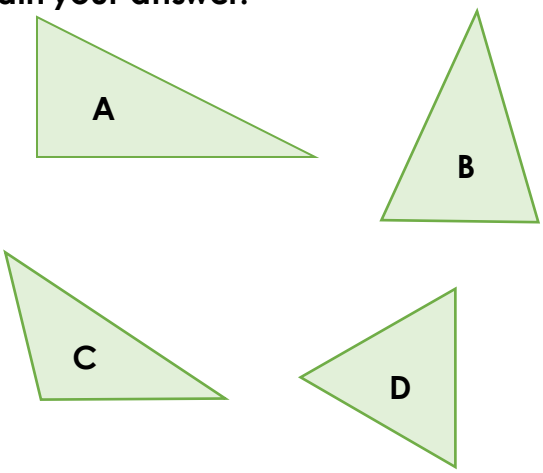
He says,

The logo includes only isosceles triangles.

Is he correct? Explain your answer.

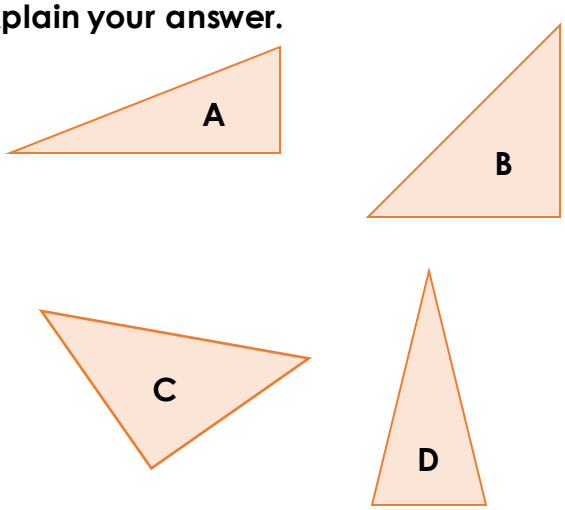
E R

6a. Which triangle is the odd one out? Explain your answer.



E R

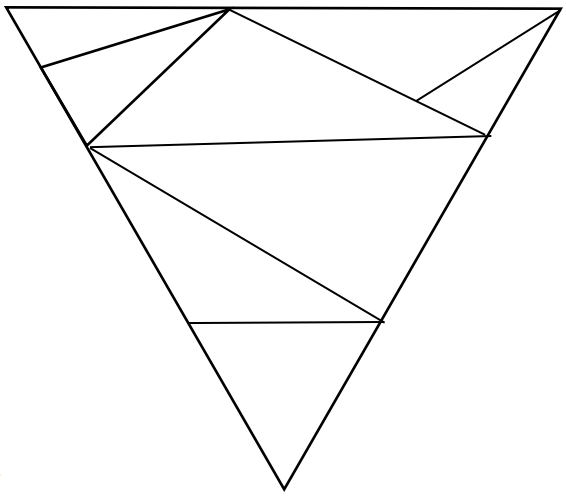
6b. Which triangle is the odd one out? Explain your answer.



E R

Triangles

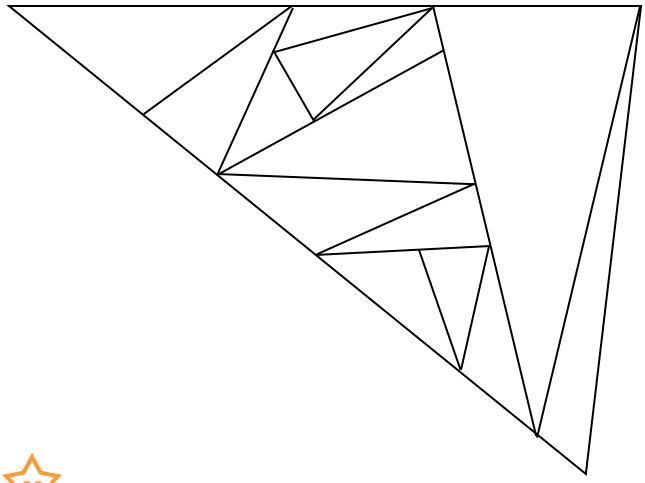
7a. Colour the triangles in this image which are not equilateral. Use a ruler to help.



GD PS

Triangles

7b. Colour the triangles in this image which are scalene. Use a ruler to help.



GD PS

8a. Lucy is designing a logo for a hat shop.

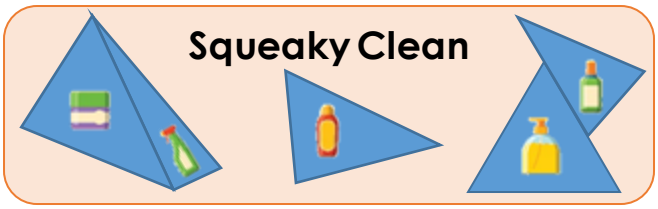
She says,

The logo does not include any equilateral triangles.

Is she correct? Explain your answer.

GD R

8b. Hugo is designing a logo for his cleaning company.



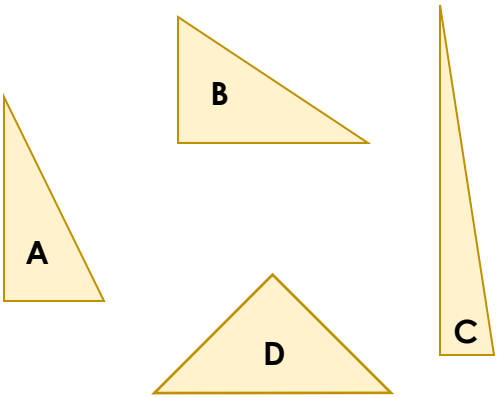
He says,

The logo includes only three scalene triangles.

Is he correct? Explain your answer.

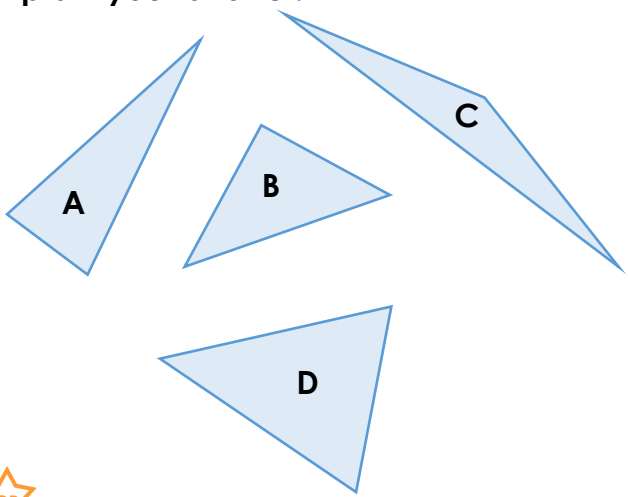
GD R

9a. Which triangle is the odd one out? Explain your answer.



GD R

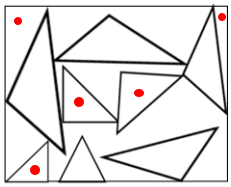
9b. Which triangle is the odd one out? Explain your answer.



GD R

Reasoning and Problem Solving Triangles

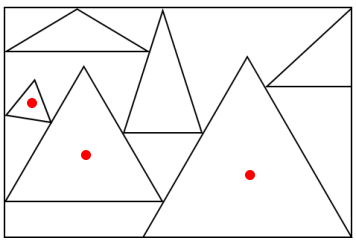
Developing

1a. 

2a. Yes because the triangle on the right has three sides of different lengths.

3a. Various answers, for example: B because it is not a right angled triangle.

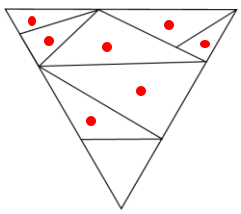
Expected

4a. 

5a. No because there is only one equilateral triangle (with the apple on it).

6a. Various answers, for example: D is the only equilateral triangle.

Greater Depth

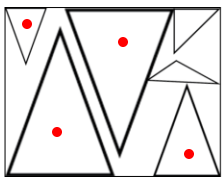
7a. 

8a. No because the triangle with the baseball cap on it has three equal sides.

9a. Various answers, for example: D is not a right angled triangle.

Reasoning and Problem Solving Triangles

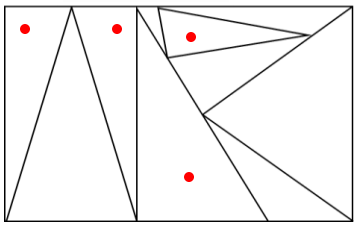
Developing

1b. 

2b. No because the only triangle does not include any right angles.

3b. Various answers, for example: B because it is not an isosceles triangle.

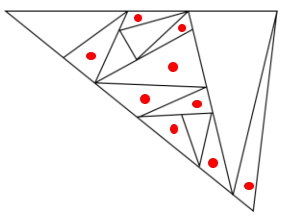
Expected

4b. 

5b. No because there are no isosceles triangles within the logo.

6b. Various answers, for example: D is not a right angled triangle.

Greater Depth

7b. 

8b. No because the triangle with the hand soap on it is equilateral and all the rest are scalene. Therefore, there are four scalene triangles.

9b. Various answers, for example: B is not an isosceles triangle.