Mathematics

Percentages
Visual Representations

What do I do?

In the following questions, you'll be asked to identify the percentages as a visual representation. This could be by shading a percentage of a shape or by identifying which percentage is being shown in a picture.

What skills do I need to improve?

Doing lots of practice questions will help with becoming familiar with question types but what else can you do to improve in this area?

- Play multiplication games/quizzes on various apps and online platforms.
- When you're shopping and there's a sale – see if you can calculate 10% off in your head and test yourself at the checkout!
- Create your own patterns and ask a friend to shade a certain percentage in. Start with a 100 square grid and write down the percentage of colours that you used. For an extra challenge – convert these into decimals and fractions.

Top Tips!

- Make sure that you are comfortable with some of the percentages as fractions as this will help. Simple fractions such as a half or a quarter, can be easily identified on a visual representation. If you can convert from fractions to percentages, you're already half way there!
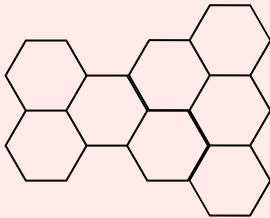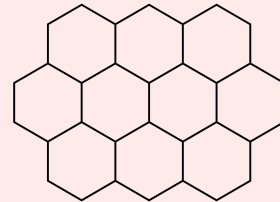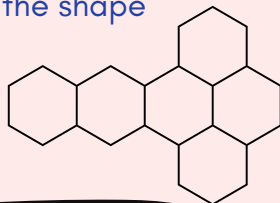
Questions
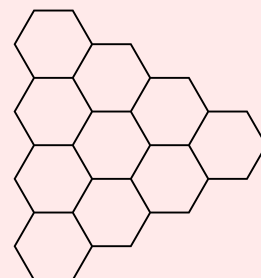
1. Shade in 25% of the shape

2. Shade in 40% of the shape

3. Shade in 50% of the shape

4. Shade in 20% of the shape

Can you create your own visual representation of a percentage by creating a pattern on a hundred square?
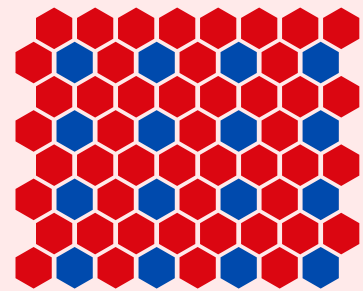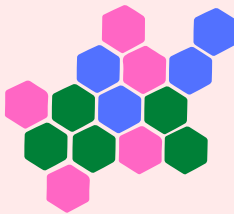
Questions - The Art Competition

Arabella created a pattern, for an art competition, using red and blue hexagons. What percentage of her hexagons are shaded in blue?
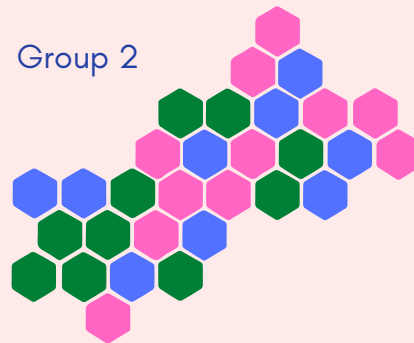
_____

Group 1 and group 2 have created a hexagonal pattern using three different colours: pink, blue and green. Circle whether the following statements are true or false.
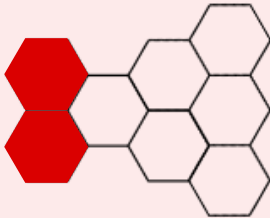
Group 1

Group 2

1. Group 2 painted 50% more green hexagons than group 1.   TRUE   FALSE

2. Group 2 have painted 30% of their pattern green.   TRUE   FALSE

3. Group 1 have painted more than 25% of their pattern blue.   TRUE   FALSE

4. Green and blue tiles account for less than 50% of   TRUE   FALSE

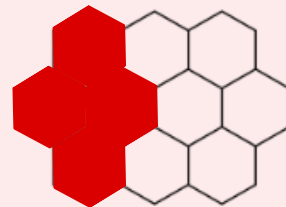   group 1's pattern.

Mathematics

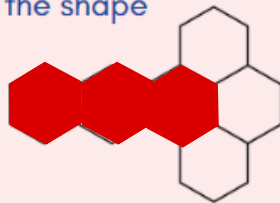## Percentages Visual Representations
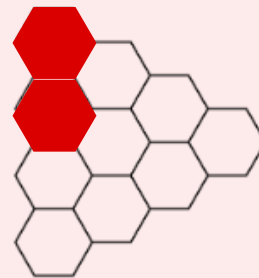
Answers

1. Shade in 25% of the shape

2. Shade in 40% of the shape

3. Shade in 50% of the shape

4. Shade in 20% of the shape

Arabella created a pattern, for an art competition, using red and blue hexagons. What percentage of her hexagons are shaded in blue? **25%**

1. Group 2 painted 50% more green hexagons than group 1.   ***TRUE***   FALSE
2. Group 2 have painted 30% of their pattern green.   TRUE   ***FALSE***
3. Group 1 have painted more than 25% of their pattern blue.   ***TRUE***   FALSE
4. Green and blue tiles account for less than 50% of   TRUE   ***FALSE***
   group 1's pattern.