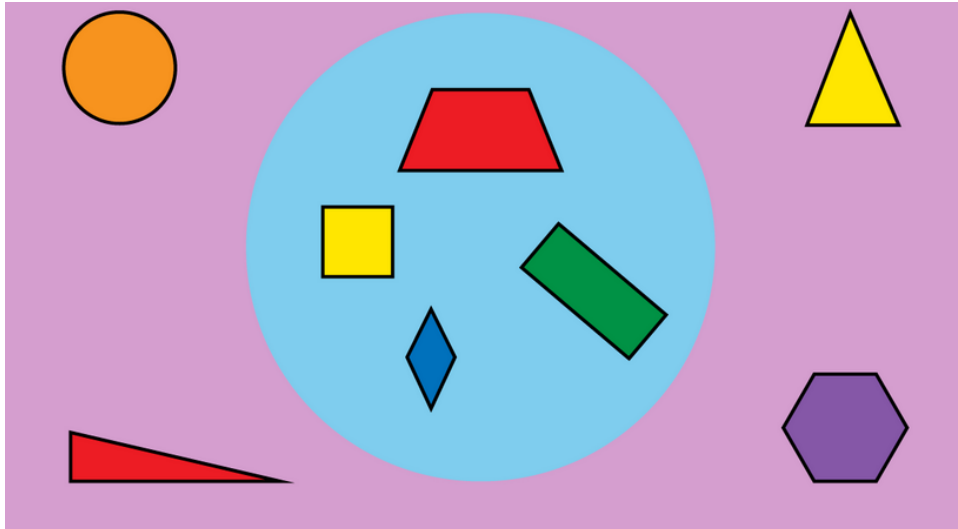


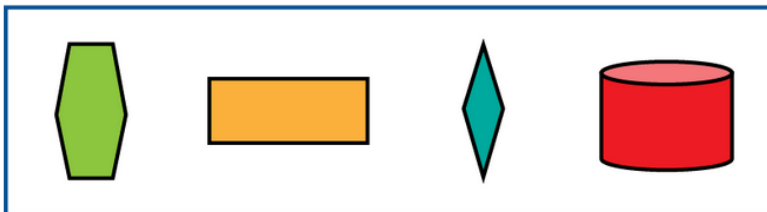
January Math Newsletter

Grades K-1

Take time with your family to
talk and reason about math.



1. Some shapes belong in the circle, and some shapes do not. There is a rule to decide what belongs in the circle. What is that rule?
2. Which shapes belong inside of the circle? Circle them. How do you know?



3. Draw at least one more example that belongs outside the circle.

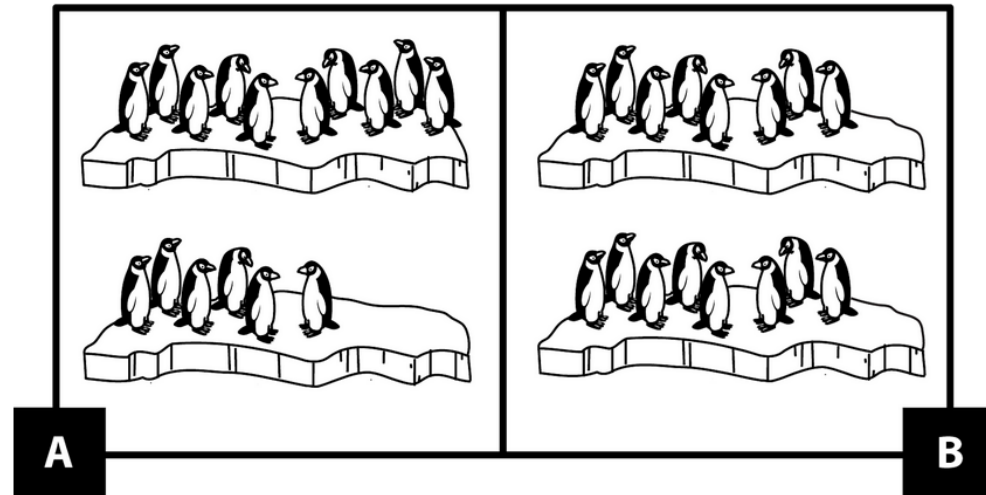
Need a hint?

Look at the shapes inside the circle. Count the sides and corners on each shape. What do you notice?

Challenge

Make your own rule for shapes. You can use the circle below or draw your own.

Look at the two pictures. What do you notice?

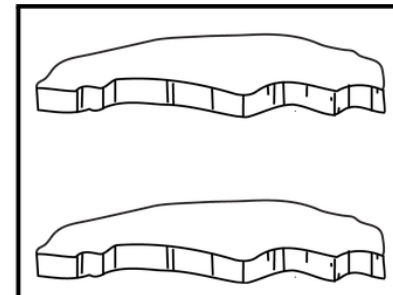


1. How are pictures A and B mathematically the same, and how are they different?

- A and B are the same because ...
- A and B are different because ...

2. Make a third picture of penguins on ice ledges. You can use these ice ledges or draw your own.

Explain how your picture is the same as pictures A and B, and how it is different.



Flip over to see if your thinking matched
ours **AND** to get links to interactive math
games to play with your family at home.

Possible thinking/reasoning for the activities on the front

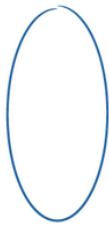
1. Some shapes belong in the circle, and some shapes do not. There is a rule to decide what belongs in the circle. What is that rule?

I think the rule is that the shape has to have 4 sides and 4 corners to be in the circle. I see a rhombus, a square, a trapezoid, and a rectangle. To be outside the circle, it doesn't have 4 sides. The hexagon has more than 4 sides, it has 6 sides. The triangles have 3 sides. The orange circle has less than 4 sides. To be outside the circle, the shape can have more or less than 4 sides.

2. Which objects belong inside of the circle? Circle them. How do you know?

I circled the rectangle and the rhombus. Both of them have 4 sides. The green shape has 6 sides. The cylinder isn't a flat shape, it has 2 flat sides but no corners.

3. Draw at least one more example that belongs outside the circle.



An oval doesn't have 4 sides.
So if it was in the picture,
it would go outside the circle.

Interactive Math Games

Hungry Caterpillar

<https://student-activities.mathlearningcenter.org/?1c39c39d>

Doubles Plus or Minus One

<https://student-activities.mathlearningcenter.org/?e464656e>

1. How are pictures A and B mathematically the same, and how are they different?

- A and B are the same because they both have 2 ledges with penguins on them. Some of the penguins are in groups of 5. There are 10 penguins facing to the right in both pictures, with 5 on top and 5 on the bottom. There's 16 penguins in both pictures. The penguins on all the ledges are facing each other.
- A and B are different because there's a different number of penguins on the ledges. B has equal groups of penguins, but A doesn't. In A, there are 10 penguins on top and 6 on the bottom, but in B there are 8 on top and 8 on the bottom. It's like A is $10 + 6 = 16$ and B is $8 + 8 = 16$. A has 10 penguins on the top ledge, but B only has 8. A has 6 penguins on the bottom ledge, but B has 8 on the bottom. A shows 10 and more, but B shows a double.

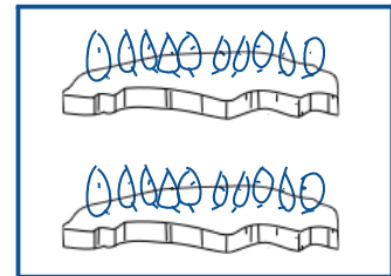
2. Make a third picture of penguins on ice ledges.
You can use these ice ledges or draw your own.

Explain how your picture is the same as pictures A and B, and how it is different.

Answers will vary. Here's one student's response:

My picture is like the others because it has a bunch of penguins on 2 ledges. My penguins are in groups of 5 like the other pictures. The 10 penguins on the left are the same in all the pictures. My picture is like A because they both have 10 penguins on the top ledge. My picture is like B because the top and bottom ledges have the same number of penguins.

My picture is different because I have more penguins than the others. My picture has 20 penguins in it but the other pictures only have 16 penguins.



Type the URL into your computer, tablet or phone to play.

