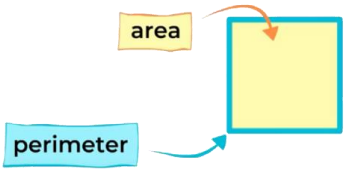
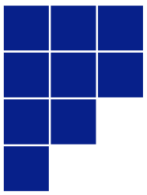
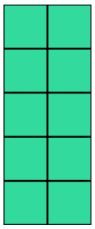
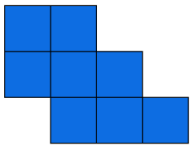
Area vs. perimeter

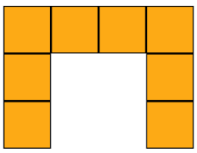
Find the perimeter and area for the following shapes. Then, circle shapes with the same perimeter in blue and shapes with the same area in red.











Perimeter: _____
Area: _____

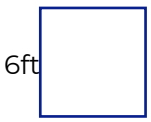
Perimeter: _____
Area: _____

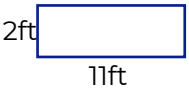
Perimeter: _____
Area: _____

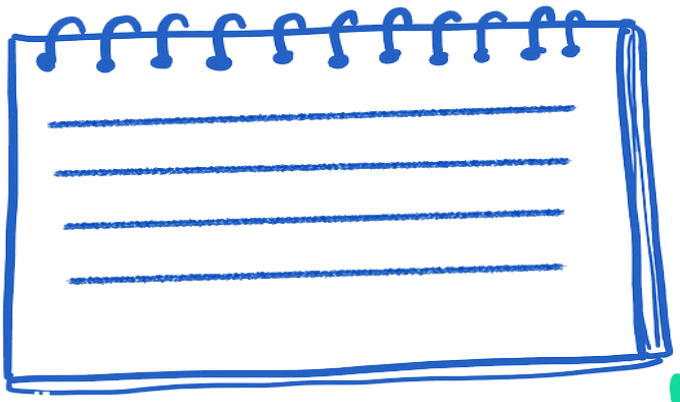
Perimeter: _____
Area: _____

Use perimeter and area to solve the problems below.

1. Mia is planning a surprise birthday party for Chen. She wants to find a place where the 26 feet of streamers she bought can go all the way around, covering the border each wall entirely. She also wants to celebrate in the biggest venue they can. Which of the three venues woud be best for Chen's party? Circle your answer and explain why.



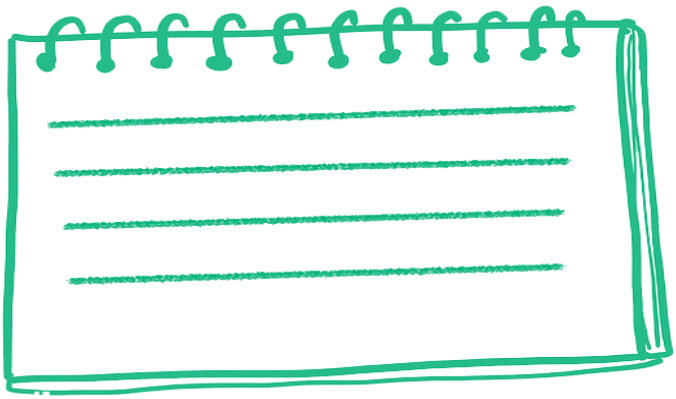




Visit us for much more at mightyowl.com

Area vs. perimeter

2. Latiffa is planting a garden in her backyard. She already did the math and found that the plants she will be growing need an area of at least 40 squared feet to grow well. The garden needs a fence around it to protect from animals, but Latiffa wants her garden to use as little fence as possible. Which option should Latiffa choose? Circle your choice and write an explanation below.



The local zoo has asked for YOUR help in designing their new enclosures for the animals. Read each set of requirements and then draw different options until you find the best one. Don't forget to label the sides of your enclosure with the correct lengths.

Example: Flamingos need an enclosure that has an area of at least $100m^2$ for them to be happy. To save money, the zoo would like to use the least amount of fence possible. How can you make this enclosure with the smallest perimeter possible?

Idea 1:
Square

10m ✓ 10m

Perimeter: 40m

Idea 2:
Long Rectangle

2m
50m

Perimeter: 104m

Idea 3:
Rectangle

4m
25m

Perimeter: 58m

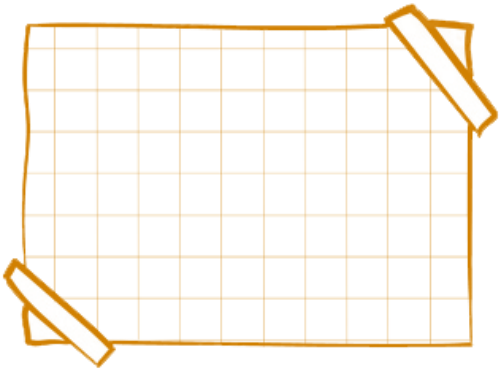
Idea 4:
Rectangle 2

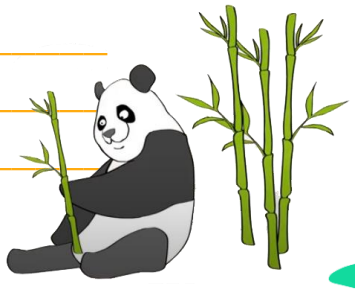
5m
20m

Perimeter: 50m

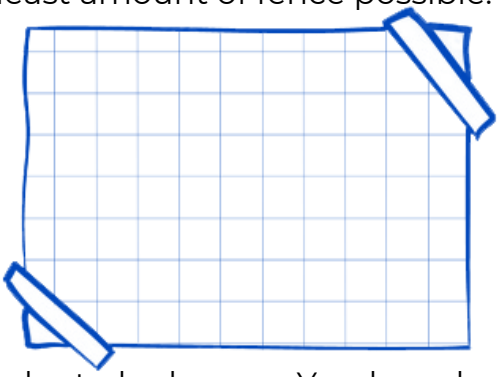
Area vs. perimeter

1. Pandas need lots of space. You have been given 102 meters of fence to create the Panda enclosure. Create an enclosure with a perimeter of 102m and the biggest area possible for the new panda!

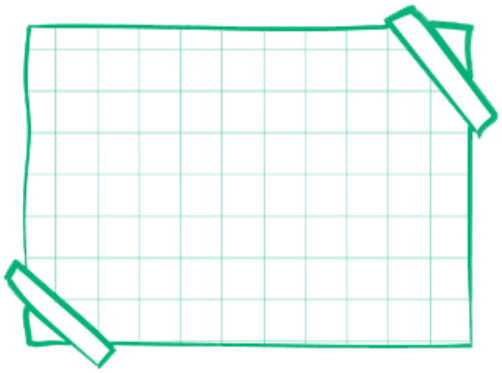




2. There will be two grizzly bears in this enclosure, but they like to have their own space. They will need at least 48m2 of area per bear in order to be happy. Design this Grizzly Bear enclosure to have enough area for each bear, but a small perimeter that uses the least amount of fence possible.



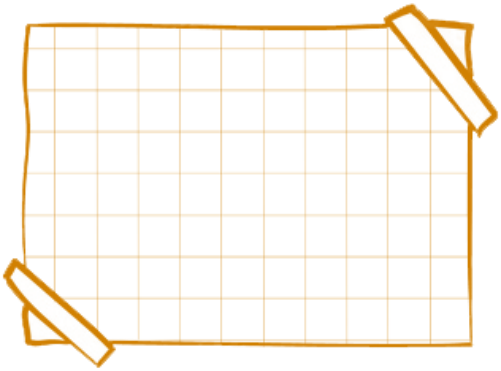
3. Wolves need lots of space to roam in order to be happy. You have been given 150 meters of fence to create the wolf enclosure. Create an enclosure with a perimeter of 150m and the biggest area possible.



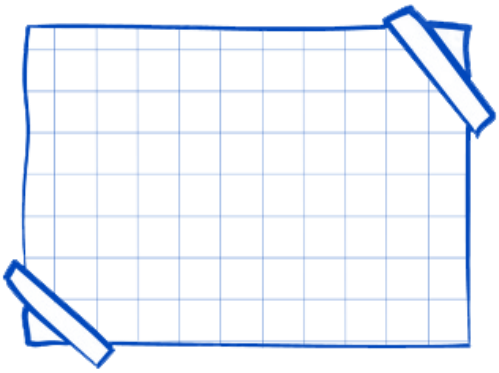
Visit us for much more at mightyowl.com

Area vs. perimeter

4. The Giraffes need at least 200 meters squared of area to be happy. Draw an enclosure for the giraffes that uses the least amount of fence possible.



5. Penguins enjoy hiding from each other as a part of play. They don't want a boring rectangular enclosure but want to be able to move around in fun ways! You have 60 meters of fence and must create an enclosure with an area of at least 140m2 for these creatures!



BONUS ACTIVITY: Use a piece of graph paper to draw a blueprint of your zoo. Make sure you save enough room for bathrooms and a gift shop!