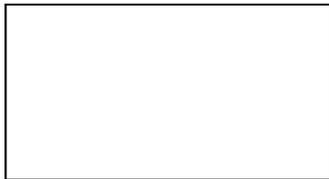


Use **graph paper** for all drawings and all work.

1. Draw a figure whose perimeter is 24 units.
2. Draw a different figure whose perimeter is also 24 units.
3. Draw a figure whose area is 24 square units.
4. Draw a different figure whose area is also 24 square units.
5. Make up a real world word problem in which you need to find the perimeter of any quadrilateral.
6. Make up a real world word problem in which you need to find the area of any quadrilateral.
7. Can two different figures have the same area but different perimeters? Explain your answer.
8. Your dog, Benji, needs a new play area. You are in charge of building a fence around the dog's play area so that he can't run away. You are given 80 feet of fencing to build your play area. Build two different play areas, each using 80 feet of fencing, which you think would be suitable for a dog using all of the fencing. For each of your **SCALE** drawings:
 - Calculate the perimeter
 - Calculate the area
 - Explain why/how the shape you chose would be good for a dog's play area

PART 2

9. 17 in.



The perimeter of the rectangle is 62 in.
Find the length of each side.

10. Amanda bought 40 meters of fencing to make an enclosure for her dog, Sushi. If Amanda expects a rectangular enclosure, what is the largest area it can have? Explain your answer.
11. The width of a rectangle is 4.5 inches and its perimeter is 31 inches. What is the length of the rectangle?

PART 3

12. The club house is a rectangle that is 25 feet by 40 feet in size. The officers voted to put a 6-foot sidewalk all around the building, leaving a 2-foot space for plants between the building and the sidewalk. Give the perimeter of the outer edge of the sidewalk and the area of the sidewalk itself.
13. What is the area of each black and white piece if the whole square measures 20 cm on each side? What percent of the area of the large square is the small shaded square?

