

Shapes and Data Displays: math practice, Grade 3 – download the PDF

22 problems graded by difficulty (★ easy, ★★ medium, ★★★ hard). Try first, without looking at the solutions!

1 Name that quadrilateral



Name each shape.

- a. It has 4 equal sides and 4 right angles.
- b. It has 4 right angles and its sides are not all equal.
- c. It has 4 equal sides and no right angle.

2 Find the quadrilaterals



Here are some shapes: triangle, rectangle, pentagon, rhombus, hexagon, square, trapezoid.
Which ones are quadrilaterals? How many are there?

3

Sandwich fourths

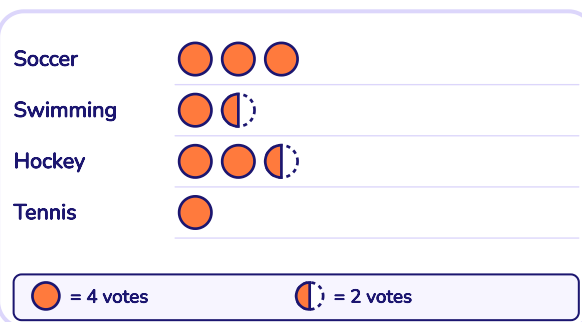
Nadia cuts a square sandwich into 4 equal pieces. She eats 1 piece and her brother eats 3 pieces.

- What is the name of each piece?
- What fraction of the sandwich does her brother eat?

4

Favorite sports picture graph

Students voted for their favorite sport.

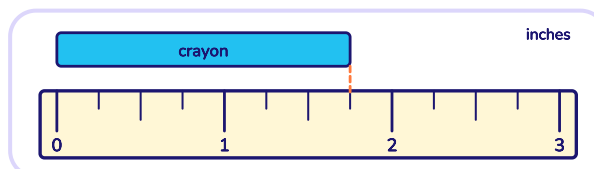


- How many votes did soccer get?
- Which sport got the fewest votes?
- How many more votes did soccer get than tennis?

5

Measure the crayon

A crayon lies against a ruler.

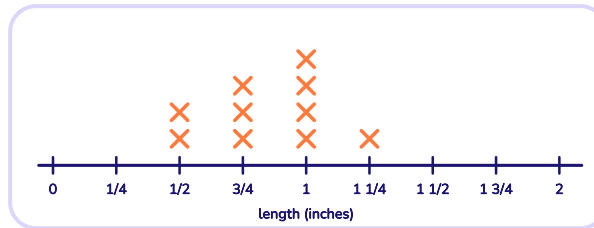


How long is the crayon to the nearest quarter inch?

6 Bean line plot



Mr. Diaz measured dry beans to the nearest quarter inch.



- How many beans did he measure?
- How many beans are 1 inch or longer?
- What is the longest length?

7 True or false?



Say whether each sentence is true or false. Explain.

- Every square is a rectangle.
- Every rectangle is a square.
- Every square is a rhombus.
- Every rhombus is a square.

8 A rhombus with 5 cm sides



A quadrilateral has 4 sides that each measure 5 cm. It has no right angles.

- What is it called?
- What is its perimeter?
- Could it be a square? Why or why not?

9

Garden rectangle

A rectangular garden is 9 feet long and 4 feet wide.

- Which sides have the same length?
- What is the distance around the garden?

10

Sorting by attributes

Sort these shapes by their attributes.

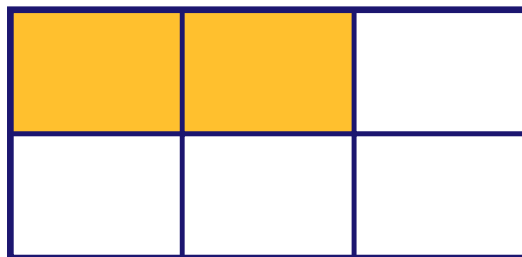
- Shape P: a square.
- Shape Q: a rectangle 3 inches by 5 inches.
- Shape R: a slanted rhombus.
- Shape S: a trapezoid with different side lengths.

Which shapes have 4 right angles? Which have 4 equal sides? Which have neither?

11

Pizza sixths

A rectangular pizza is cut into 6 equal pieces. Dani eats the 2 shaded pieces.



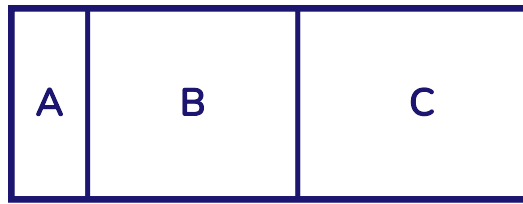
a rectangle cut into 6 equal parts

- What fraction of the pizza does each piece show?
- What fraction did Dani eat?
- What fraction is left?

12 Are these thirds?



Tomas says that parts A, B and C are thirds because there are 3 parts.



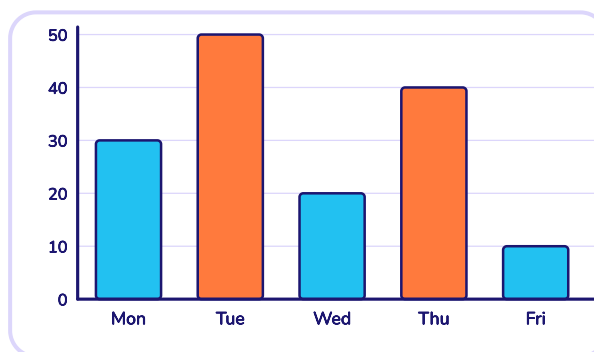
a rectangle cut into 3 parts

Is he right? What must be true for the parts to be thirds?

13 Boxes recycled



A school recycled boxes for five days. The lines on the graph count by 10.



- On which day were the most boxes recycled?
- How many boxes in all?
- Which day had exactly twice as many boxes as Wednesday?

14 Fruit stand picture graph

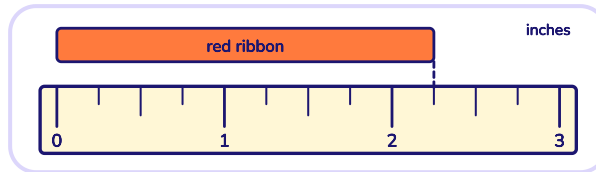


A fruit stand sold 14 apples, 6 pears and 10 plums. In a picture graph, one circle stands for 4 fruits. How many circles should you draw in each row? Use half circles when needed.

15 Two ribbons



The red ribbon is shown on the ruler. The blue ribbon is $1\frac{3}{4}$ inches long.



How much longer is the red ribbon than the blue ribbon?

16 Pencil line plot



Eight pencils measure (in inches): $\frac{1}{2}$, 1, $1\frac{1}{2}$, 1, $\frac{3}{4}$, 1, $1\frac{1}{2}$, $\frac{1}{2}$.

- Make a tally table that shows how many pencils have each length.
- How many X marks go above 1 on a line plot?
- How many pencils are shorter than 1 inch?

17 Reading a scaled bar graph



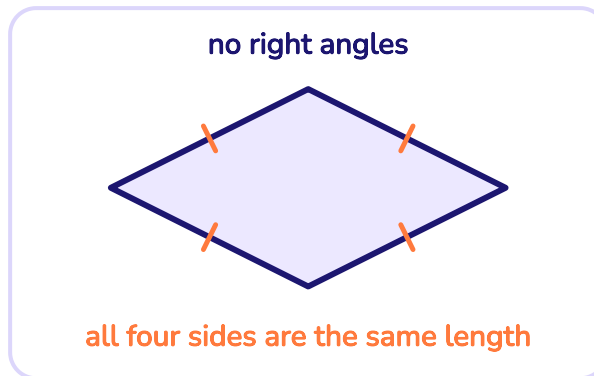
On a bar graph the lines count by 5. The bar for the Tigers ends on the 7th line above 0. The bar for the Hawks is 3 lines shorter.

- What is the value for the Tigers?
- What is the value for the Hawks?
- A bar ends on the line labeled 55. How many lines is that above 0?

18 Rhombus or square?



Nico says: "A shape with 4 equal sides must be a square."



Use the shape to show that Nico is wrong. Then say what extra attribute a square needs.

19 Mystery shapes



Name each shape from its clues.

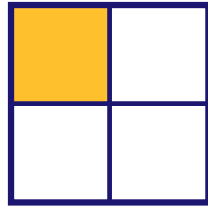
- I am a quadrilateral. My opposite sides are equal. I do not have 4 equal sides. All my angles are right angles.
- I am a quadrilateral with no right angles. Each of my sides is 6 inches. What is my perimeter?

20

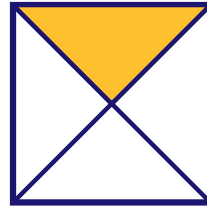
Two ways to cut a square



Two identical squares of cheese have sides of 8 inches. Square 1 is cut into 4 small squares. Square 2 is cut into 4 triangles by two diagonal lines.



Square 1



Square 2

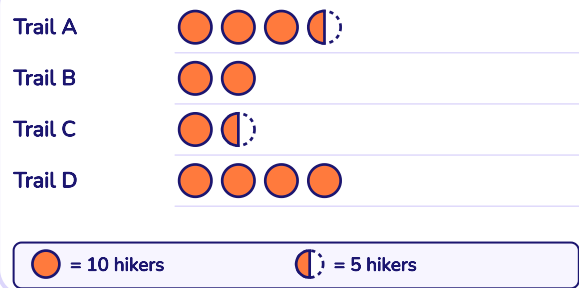
- Is the shaded part $\frac{1}{4}$ of the whole in both squares?
- What is the area of each shaded part?

21

Hiking trails



The graph shows how many hikers walked each trail.

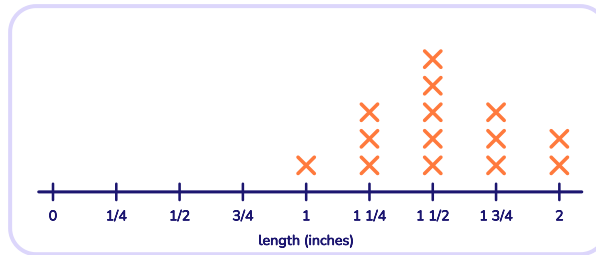


- How many hikers walked in all?
- How many more hikers walked Trail D than Trail C?
- Trail C gets 10 more hikers next week. Draw its row: how many circles and half circles?

22

Leaf collection

Mia measured leaves to the nearest quarter inch.



- How many leaves did she measure?
- How many leaves are longer than $1\frac{1}{2}$ inches?
- What is the difference between the longest and shortest leaf?

**Test yourself: quick challenge for Grade 3**[Change level](#)

Level : **Grade 3**

6 random questions, instant feedback.

**Start the challenge****Speed drill for Grade 3: how many in 60 seconds?**

 Keep exploring with Zyro

 Practice solutions

Shapes and Data Displays: practice solutions, Grade 3

 Math lessons

Shapes and Data Displays: math lesson, Grade 3

 Math quizzes

Shapes and Data Displays: math quiz, Grade 3

 Practice solutions

Place Value and Rounding: practice solutions, Grade 3

 Practice solutions

Adding and Subtracting Within 1,000:

 Math lessons

Place Value and Rounding: math lesson,

Zyro vous emmène sur nos sites partenaires

Embarquez pour d'autres planètes du savoir et leurs applis.

Décollage