

Grade 4 · Lines, Angles, Shapes and Symmetry

· Test

Common Core 4.G.A.1, 4.G.A.2, 4.G.A.3 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

This Grade 4 test covers points, lines, rays, angle types, parallel and perpendicular lines, triangles, quadrilaterals and lines of symmetry. It has 9 questions worth 20 points in all. Students should work alone for about 45 minutes and show their thinking when a question asks for an explanation.

Test information

- **Grade:** Grade 4
- **Chapter:** Lines, Angles, Shapes and Symmetry
- **Common Core:** 4.G.A.1, 4.G.A.2, 4.G.A.3
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 3 pts; Question 5: 2 pts; Question 6: 3 pts; Question 7: 2 pts; Question 8: 2 pts; Question 9: 2 pts)

Question 1: Lines, rays and segments (2 points)

Use the figure.

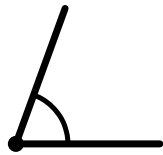


Figures X, Y and Z.

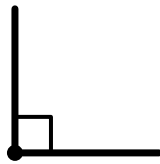
- Which figure is a ray, and which is a line segment? (1 point)
- Explain why figure Z cannot be measured from end to end. (1 point)

Question 2: Classify the angles (2 points)

Classify each angle as acute, right or obtuse.



Angle 1



Angle 2



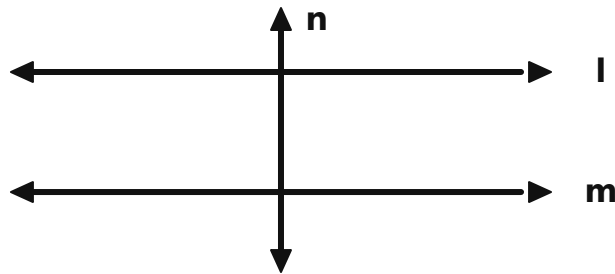
Angle 3

Angles 1, 2 and 3.

- a. Angle 1 and Angle 2 (1 point)
- b. Angle 3 (1 point)

Question 3: Three lines (2 points)

Lines l, m and n are shown.

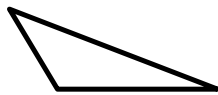


Lines l, m and n.

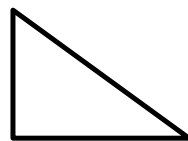
- a. Which two lines are parallel? (1 point)
- b. Which line is perpendicular to the other two? (1 point)

Question 4: Types of triangles (3 points)

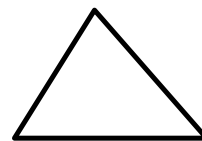
Name the type of each triangle: right, acute or obtuse.



X



Y



Z

Triangles X, Y and Z.

- a. X (1 point)
- b. Y (1 point)
- c. Z (1 point)

Question 5: Quadrilaterals (2 points)

For each figure, write the number of pairs of parallel sides and the number of right angles.

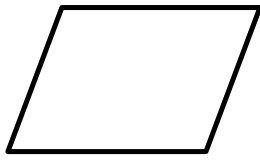


Figure P

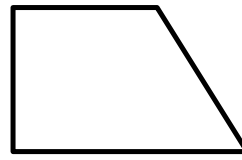


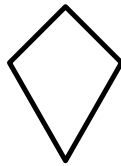
Figure Q

Figures P and Q.

- a. Figure P (1 point)
- b. Figure Q (1 point)

Question 6: Counting symmetry (3 points)

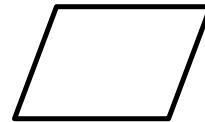
How many lines of symmetry does each figure have?



A



B



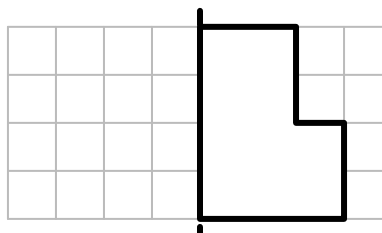
C

Figures A, B and C.

- a. Figure A (1 point)
- b. Figure B (1 point)
- c. Figure C (1 point)

Question 7: Complete the figure (2 points)

The dashed line is a line of symmetry. Draw the other half of the figure.



Right half of the figure.

Question 8: Find the mistake (2 points)

Read each statement and correct the mistake.

- a. Noah says every rectangle has 4 lines of symmetry. *(1 point)*
- b. Priya says a ray has a length you can measure. *(1 point)*

Question 9: Maya's triangle (2 points)

Maya draws a triangle with exactly one right angle. She says it is an obtuse triangle. Is she correct? Explain.