



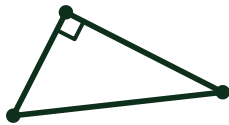
CLASSIFYING FIGURES · GRADE 4 · 4.G.A.2

Classifying Figures Check

Name _____ Date _____ Correct _____ / 23

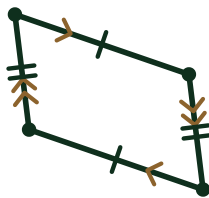
1 Write the closest name - every one of them is turned, and turning changes nothing

same length
 same way, never meet
 square corner



1. (a)

closest _____



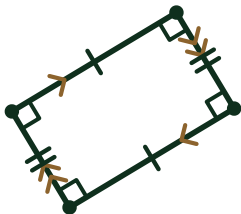
2. (b)

closest _____



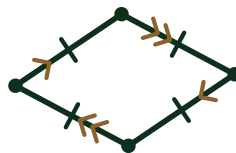
3. (c)

closest _____



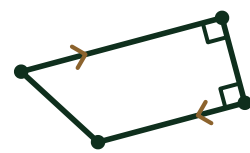
4. (d)

closest _____



5. (e)

closest _____



6. (f)

closest _____

7. every figure with a square corner

8. every figure with no pair running the same way

9. every figure that is a right triangle

10. the figure with four sides alike and no square corner

Roots of Reason

Classifying Figures Check · 4.G.A.2

Name _____ Date _____

quadrilateral four straight sides

parallelogram two pairs run the same way

rhombus four sides the same length

right triangle three sides, one square corner

trapezoid exactly one pair runs the same way

rectangle four square corners

square four square corners and four sides alike

obtuse triangle three sides, one corner past square

2 Accept it or turn it down - the letters point back to page 1

11. Figure (d) is a rectangle, so it is not a parallelogram.

☐ true

☐ false

12. Figure (a) carries a square corner, so it is not a triangle.

☐ true

☐ false

13. A triangle can carry a square corner and still have no two sides the same length.

☐ true

☐ false

14. Figure (f) has a pair of sides running the same way, so it cannot carry a square corner.

☐ true

☐ false

15. Figures (b) and (e) both have two pairs running the same way, so they answer to the same closest name.

☐ true

☐ false

16. A figure with four square corners always has two pairs of sides running the same way.

☐ true

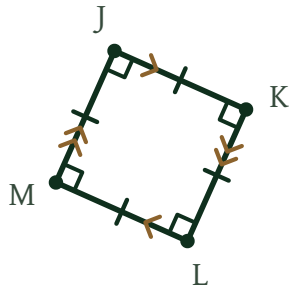
☐ false

17. A classmate sorts the six figures on page 1 by whether each one carries a square corner, and says that sorting settles which name each figure answers to. Say what is wrong, and name two figures that show it.

Roots of Reason

Classifying Figures Check · 4.G.A.2

Name _____ Date _____

3 Put JKLM in every group it belongs to

18. a pair of sides that run the same way _____

19. the closest name _____

20. one wider name it also answers to _____

21. One of these is true of JKLM. Mark it.

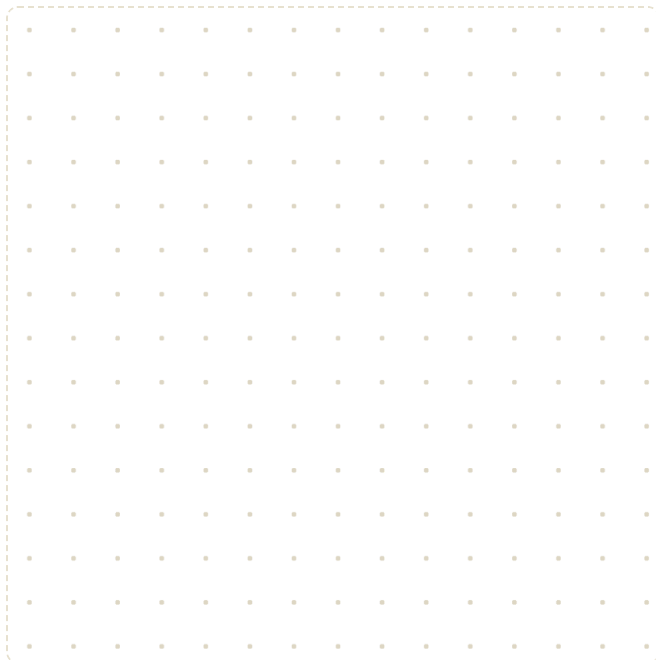
a square, so not a rectangle

a square, a rectangle and a rhombus

a rectangle only when turned square to the page

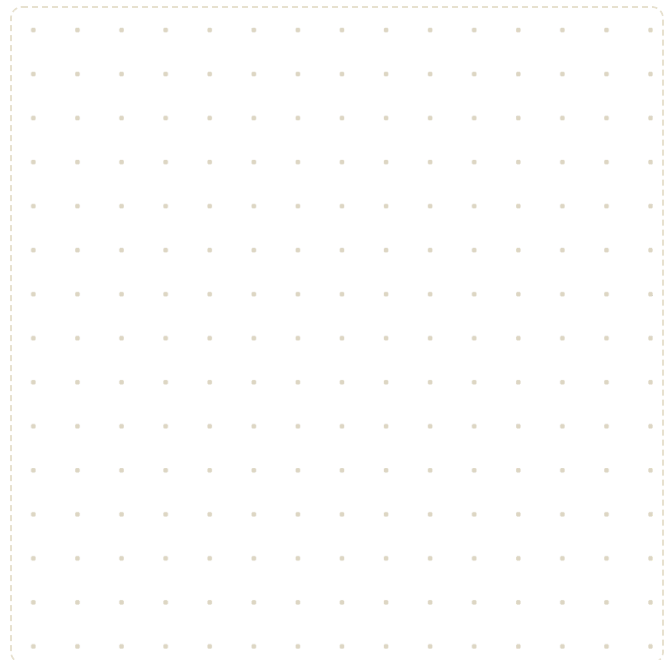
4 Draw one that answers to both at once - count the gaps between the dots, not the dots

22. Draw a figure with a square corner and exactly one pair of sides running the same way.



closest name _____

23. Draw a figure with three sides, one square corner, and two sides the same length.



closest name _____



CLASSIFYING FIGURES · GRADE 4 · 4.G.A.2

Classifying Figures Check

Write the closest name

1. *right triangle* 2. *parallelogram* 3. *obtuse triangle* 4. *rectangle* 5. *rhombus* 6. *trapezoid*

Six figures, six different names, none of them sitting square to the page. Take a wider name as correct only where the reader also gave the closest one.

Report the sets

7. *a, d, f* 8. *a, c* 9. *a* 10. *e*

Item 8 is the two triangles: three sides cannot hold a pair running the same way. Item 10 turns on both marks at once, since (d) also carries square corners and (b) has two pairs of sides alike rather than four.

Accept it or turn it down

11. *false* 12. *false* 13. *true* 14. *false* 15. *false* 16. *true*

11. A rectangle has two pairs running the same way, so it is a parallelogram as well. 12. A square corner and three sides sit together happily, and (a) is the proof. 13. (a) has sides of three different lengths. 14. (f) carries both, one pair and two square corners. 15. (b) and (e) both have two pairs, and (e) has four sides alike while (b) does not. 16. Four square corners force both pairs to run the same way.

Roots of Reason

Classifying Figures Check · Answer Key · 4.G.A.2

Say what is wrong

17. Sorting on one attribute reports that attribute and nothing else. (a) and (d) both carry a square corner and answer to different names. (b) and (e) carry none and also answer to different names. The name needs the sides and the corners together.

Put JKLM in every group it belongs to

18. *JK and LM*, or KL and MJ 19. *square* 20. *rectangle*, or rhombus, parallelogram or quadrilateral
21. *a square, a rectangle and a rhombus*

Draw one that answers to both at once

22. Any four sided figure with one pair running the same way and at least one square corner. Figure (f) on page 1 is one, and so is any four sided figure with two dots along one side, a square corner turned up from it, and the opposite side shorter and running the same way. Closest name *trapezoid*.

23. A triangle with a square corner and the two sides that meet at it drawn the same length. Closest name *right triangle*, and isosceles right triangle is also correct. Turn down any drawing where the equal sides are the two that do not meet at the square corner, because the longest side of a right triangle cannot be matched by another.

Mark 11, 15, 19 and 20 together. A reader who turns down every wider name holds that a figure answers to one name only, and no single item shows that as clearly as the four of them side by side. Mark 12, 14 and 21 together for the other habit, sorting once and calling the classification settled.