

ANSWER MAZE



INTRO TO CONSTRUCTIONS: TOOLS AND RULES

Which of the Six Moves Made This Mark?

One page · 10–15 minutes · nothing to prepare

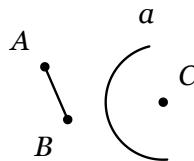
FREE

1

Which move drew arc a ?

none of the six →
go to 7
move 4 → go to 2

Where was the compass point for a ? How wide was it open?

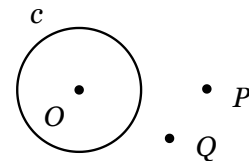


2

Which move drew circle c ?

move 4 → go to 7
none of the six → go to 1

Check what is at the center of c . Then check its opening with your compass.

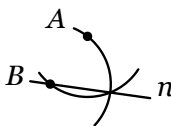


3

Which move drew line n ?

none of the six → you are out
move 2 → go to 6

Which marked points does n pass through?

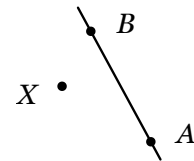


4

Which move put down point X ?

move 1 → go to 8
none of the six → go to 1

Check the six moves one at a time. Does one of them explain X ?



1. **Hand out page 3**, one per student, and a compass each. That is the whole preparation.
2. **Say this once:** *“Do not judge a mark by how it looks. Check it against the list of six moves. A line needs two marked points on it. A circle needs a marked center. Its opening must come from two marked points. A point can go anywhere.”*
3. **Start at box 5.** Six boxes and you are out. **Write every box number in the row at the foot as you go.**

Student sheet	page 3, one per student. The six moves are printed on it as pictures.
Answers	page 4.

The route is 5 → 2 → 7 → 4 → 8 → 3 → out. Boxes 1 and 6 are not on it. **They look like every other box:** marks, a question, two answers, two destinations and a hint. Both of their answers lead back onto the route.

The two boxes off the route catch the two sides of one mistake: judging a mark by how it looks. Three boxes send a wrong answer to box 6. A student there *accepted* a mark only because it looks like a move: a line through one marked point, a circle drawn around a center nobody marked, or a line through a crossing nobody marked. Three boxes send a wrong answer to box 1. A student there *refused* a legal move: a circle that passes through no dot but whose opening was copied from two other dots, a point put down anywhere, or a point put on an arc. Many students believe that copying a compass setting, or putting a point down anywhere, is cheating. It is not.

What the row at the foot tells you in one glance. A clean run is **six numbers**. A longer row shows the box where it went wrong: the number just before 1 or 6 is the box they got wrong, and which of the two tells you which way they went wrong.



This is the free lesson this activity came from. The worksheet, the full answers and the lesson plan are on it, at three levels of difficulty.
chooseyourlesson.com — 135 free geometry lessons.

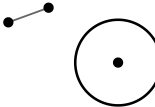
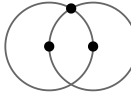
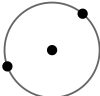
Answer Maze

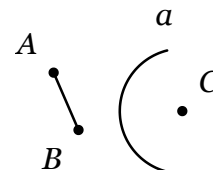
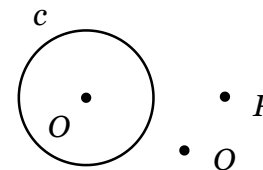
Start at box 5 · which move made the mark?

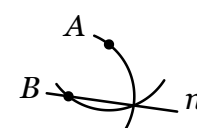
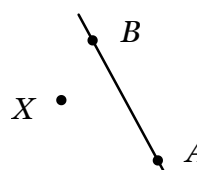
Name _____

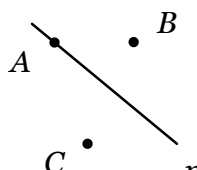
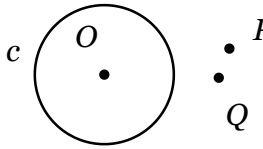
Period _____

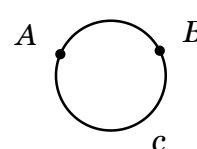
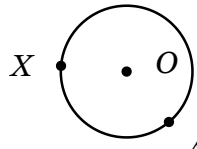
Date _____

 Move 1 <i>mark a point anywhere</i>	 Move 2 <i>line through two marked points</i>	 Move 3 <i>circle: marked center, through a marked point</i>	 Move 4 <i>circle: marked center, size copied from two marked points</i>	 Move 5 <i>mark where two drawn lines or arcs cross</i>	 Move 6 <i>mark a point on a drawn line or arc</i>
--	---	--	--	---	--

Which move drew arc a? 1 none of the six → go to 7 move 4 → go to 2 <i>Where was the compass point for a? How wide was it open?</i> 	Which move drew circle c? 2 move 4 → go to 7 none of the six → go to 1 <i>Check what is at the center of c. Then check its opening with your compass.</i> 
--	--

Which move drew line n? 3 none of the six → you are out move 2 → go to 6 <i>Which marked points does n pass through?</i> 	Which move put down point X? 4 move 1 → go to 8 none of the six → go to 1 <i>Check the six moves one at a time. Does one of them explain X?</i> 
---	--

Which move drew line n? 5 move 2 → go to 6 none of the six → go to 2 <i>Count the marked points n passes through.</i> 	Which move drew circle c? 6 none of the six → go to 5 move 4 → go to 2 <i>Try your compass on each pair of marked points. Does any pair give this opening?</i> 
--	---

Which move drew circle c? 7 move 3 → go to 6 none of the six → go to 4 <i>Find the center of c. What is there?</i> 	Which move put down point X? 8 none of the six → go to 1 move 6 → go to 3 <i>Is X on any drawn line or arc?</i> 
---	--

Write every box number here as you go. It helps you find your way back if you lose your place. Every point that was marked has a dot. **A clean run is six numbers.**

--	--	--	--	--	--



135 free geometry lessons — worksheets, worked answers and lesson plans.
chooseyourlesson.com

Answer Maze — answers

For the teacher

The route, in order. Boxes 1 and 6 are off it and follow it in the table; nobody reaches them by being right.

5 → 2 → 7 → 4 → 8 → 3 → out

	Box	The question	Answer	Wrong answer goes to	Right goes to
1	Box 5	Which move drew line n ?	none of the six	move 2 → 6 (trusted the look)	box 2
2	Box 2	Which move drew circle c ?	move 4	none of the six → 1 (refused a legal move)	box 7
3	Box 7	Which move drew circle c ?	none of the six	move 3 → 6 (trusted the look)	box 4
4	Box 4	Which move put down point X ?	move 1	none of the six → 1 (refused a legal move)	box 8
5	Box 8	Which move put down point X ?	move 6	none of the six → 1 (refused a legal move)	box 3
6	Box 3	Which move drew line n ?	none of the six	move 2 → 6 (trusted the look)	out
	Box 1	Which move drew arc a ?	move 4	none of the six → 7 (refused a legal move)	box 2
	Box 6	Which move drew circle c ?	none of the six	move 4 → 2 (trusted the look)	box 5

Why each right answer is right, from the list. Box 1, *move 4*: no dot is on it, but its opening is exactly AB, carried to the marked center C. Box 2, *move 4*: no dot is on it, but its opening is exactly PQ, carried to the marked center O. Box 3, *none of the six*: n runs through B and a crossing nobody marked — one marked point. Box 4, *move 1*: a point may be put down anywhere. Box 5, *none of the six*: only one marked point, A, lies on n . Box 6, *none of the six*: its center O is marked, but its opening is not the distance between any two marked points. Box 7, *none of the six*: nothing is marked at its center, so no move could have drawn it. Box 8, *move 6*: a point may be put anywhere on a drawn line or arc.

Guessing does not get a student out. Every simple guessing rule, such as always taking the first answer, goes wrong within the first two boxes. One shortcut does work: a student can find the route by following the arrows backward from “you are out.” So ask a student with a clean row to explain one box.