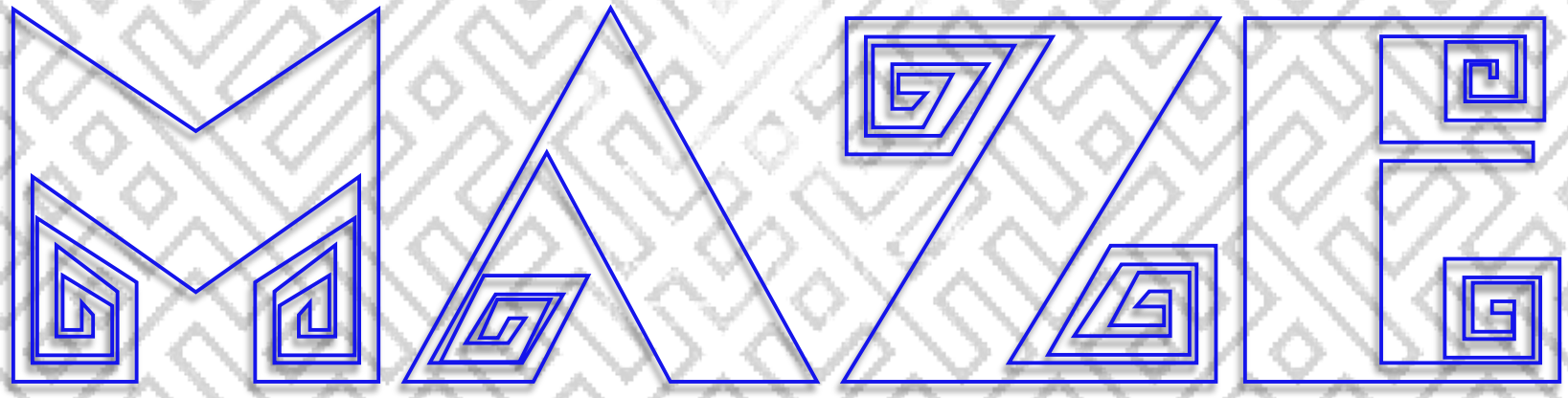
SYSTEMS



SYSTEMS MAZE

This activity will get your students out of their seats and working cooperatively in small groups. They will use their knowledge of graphing systems of equations in order to solve problems.

This is one of my favorite activities to do as a review & as a way to deepen students' understanding of concepts that they learned in a unit. This activity is one that the students actually enjoy. If I put the same questions on a worksheet, I would hear a lot of whining. Instead, they see this as a game, and they work hard to complete the "maze".

All you have to do is post the questions around the room, assign students to groups, & give them their answer sheets. The next thing you know, you have a classroom full of actively engaged students who are working together to solve problems. Sound too good to be true? Try it, and you will become a believer, too!

TEACHER INSTRUCTIONS

BEFORE CLASS:

•Print the pages.

•Post the pages (in order) around your classroom.

•Assign students to groups (up to 11 groups)

DURING CLASS:

•Pass out student answer sheet.

•Students should begin the assignment by writing their group number in the first circle (to the right of their name).

•Instruct students how the activity works. For example… "If I were in group #2, I would go to station #2 and answer the question. They should show all work (when there is any work to be shown) & circle their answer in the box provided for them on their answer sheet. The problem then gives them multiple choice answer options. For #2's problem, if I think the answer is A, it tells me to go to station #3 next. Option B tells me to go to station 5. Options C, D, & E tell me to go other places, as well. If I believe option B is correct, I should write a "5" in the number circle in the next box. I should then walk to station #5 and answer the next question the same way. By the end of the activity, I should have completed every station without repeating. If it tells you to go to the same station where you have already been, see me, and I can tell you where you went wrong."

•Tell students that they should go to that numbered station in the room when you finish giving instructions.

TEACHER INSTRUCTIONS

TEACHER TIPS

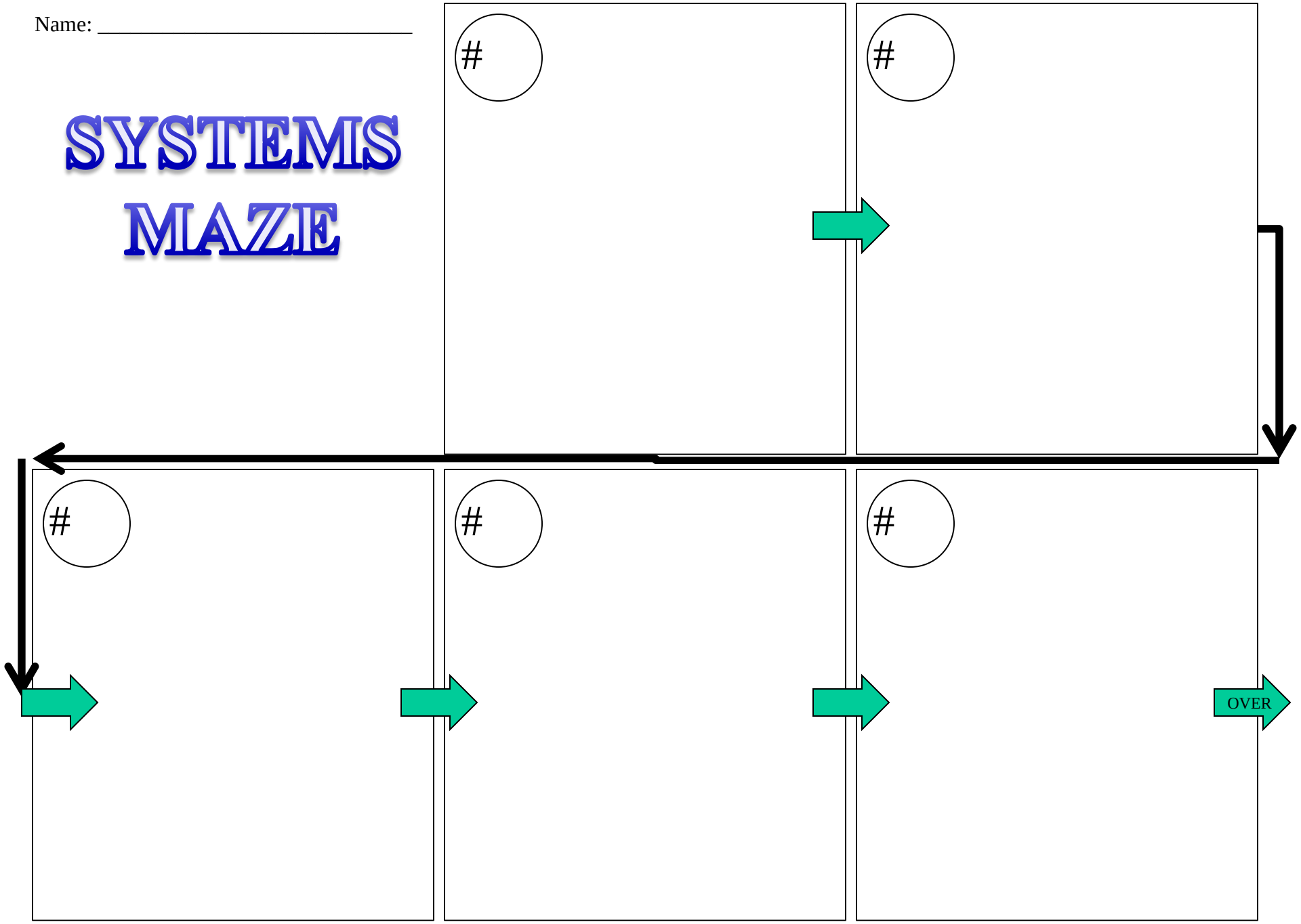
•Make a point to remind students that they will write problems on their paper in the order in which they complete them– NOT in numerical order!

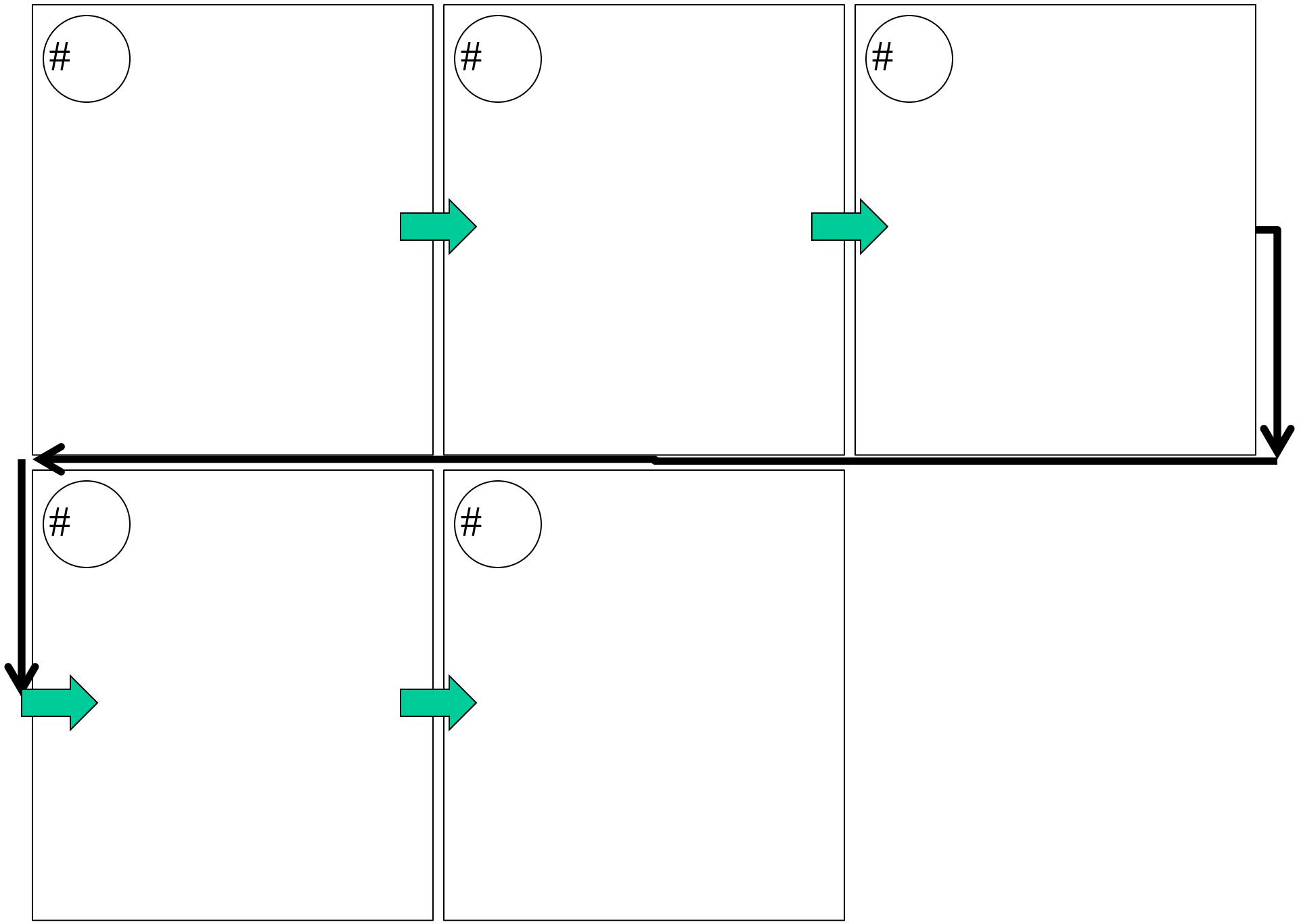
•Warn students NOT to just try to follow the group that leaves the station before them. This is the cause of great embarrassment when the first group discovers that they made a mistake & have to go back. The copycat group then has to retrace their steps as well.

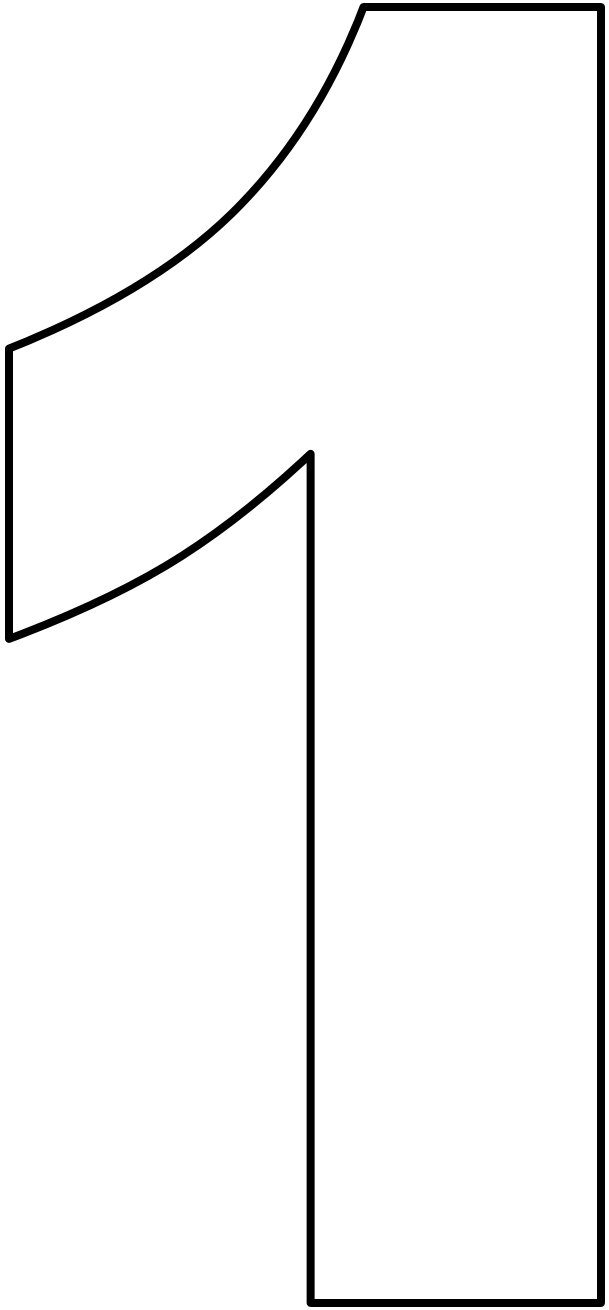
•When a group comes to you because they have made a mistake & repeated a station, check the answer key and find the first station that they have incorrect. Expect some groups to make mistakes. Make extra copies of the student answer sheets so that you can just cross out an incorrect box and have them continue from there.

Name: _____

SYSTEMS MAZE



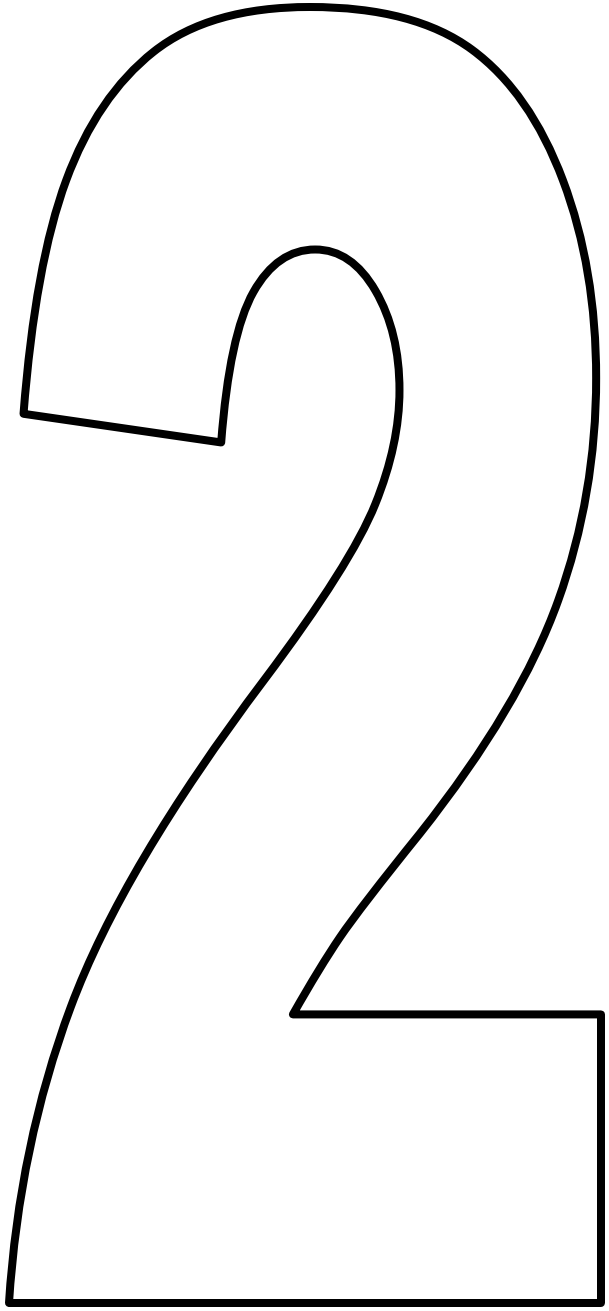




$$Y = 3x - 4$$

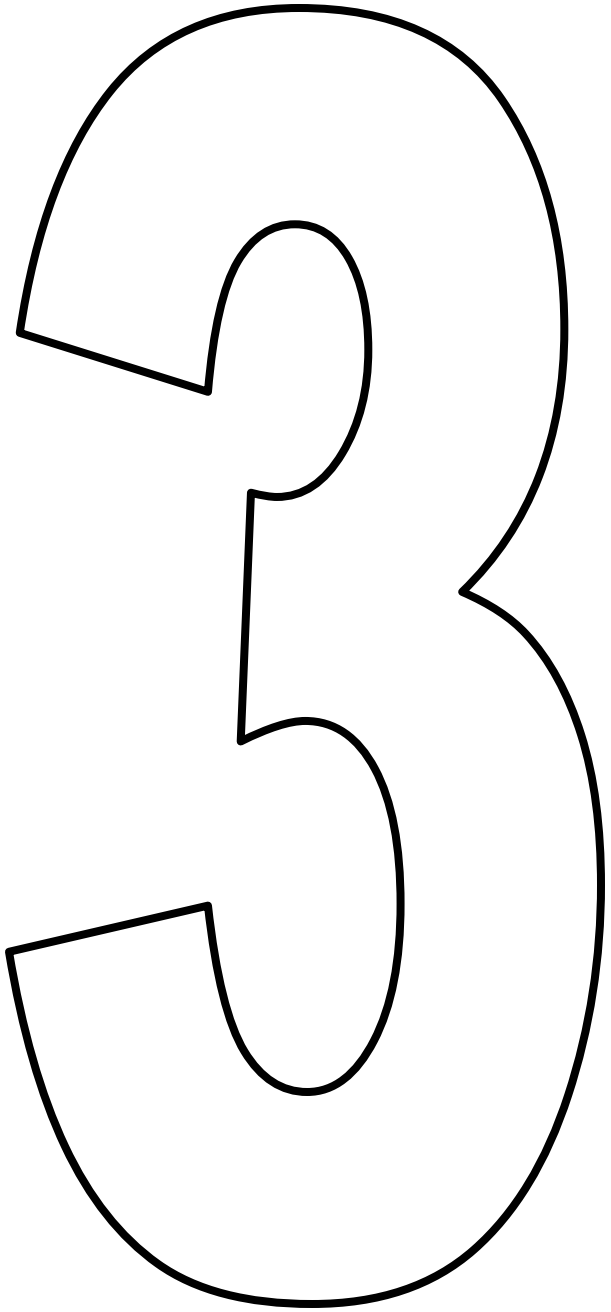
$$3x + y = 2$$

A) (1, -1)	go to 3
B) (0, -3)	go to 10
C) (0, 3)	go to 6
D) (-1, 1)	go to 9
E) No solution	go to 8



$$-4x + 3y = 9$$
$$2x + 3y = -9$$

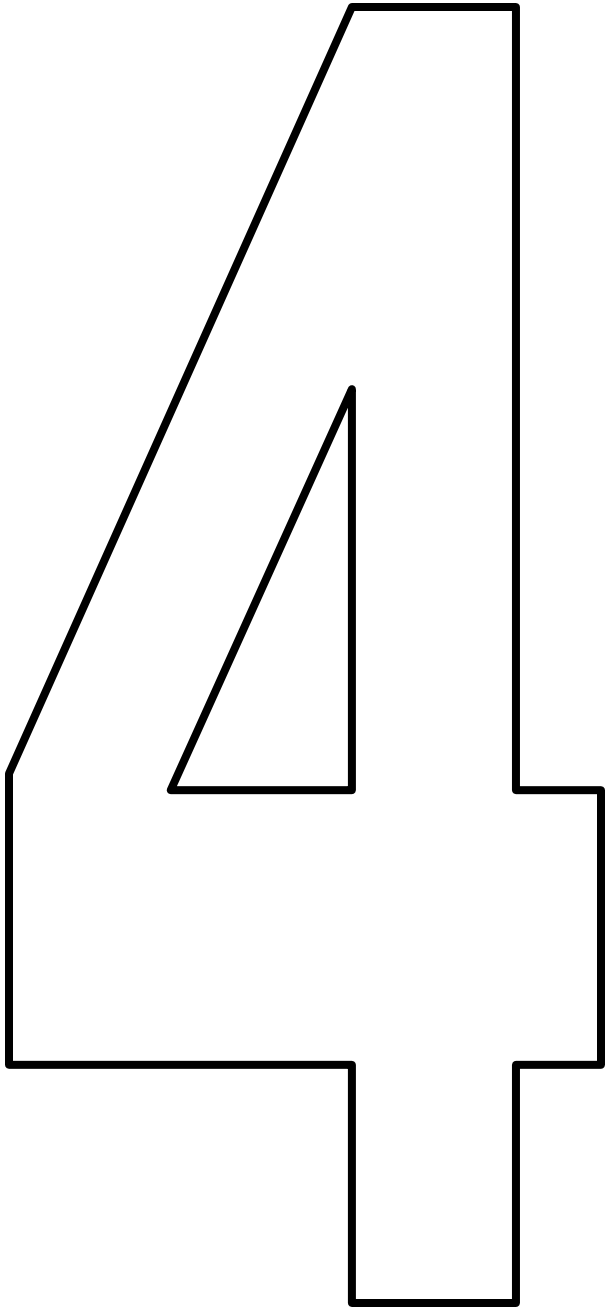
A) (9, -9)	go to 3
B) (0, -3)	go to 5
C) (-9, -9)	go to 10
D) (-3, -1)	go to 4
E) No solution	go to 7



$$Y = 5/4\ x - 2$$

$$-5x + 4y = 4$$

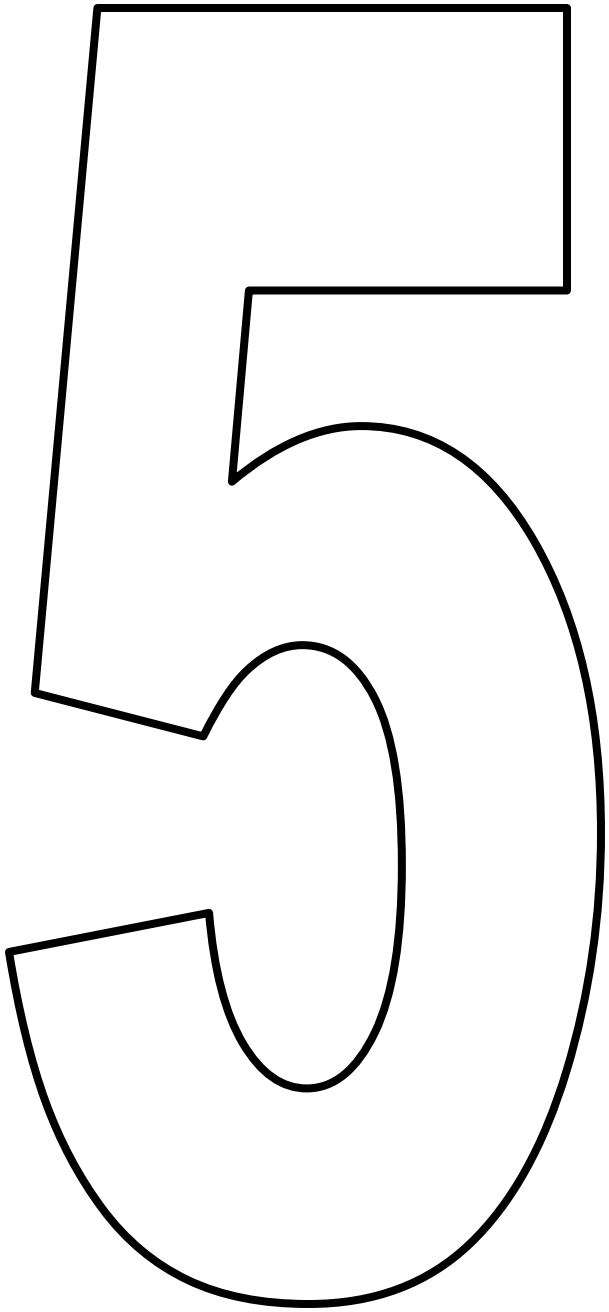
A) (1, 0)	go to 7
B) (-1, 0)	go to 1
C) (0, -2)	go to 8
D) (-1, -1)	go to 2
E) No solution	go to 5



$$y = 1/3x + 2$$

$$x + y = -2$$

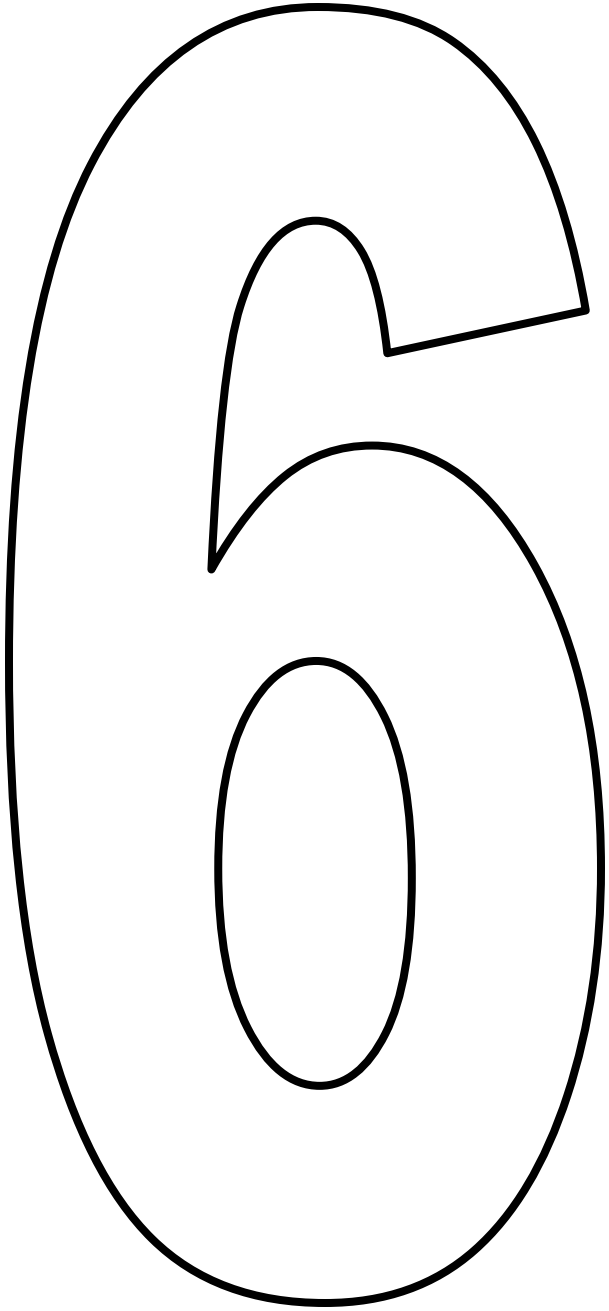
A) (-3, 1)	go to 10
B) (-6, 4)	go to 1
C) (6, 4)	go to 9
D) (0, -2)	go to 2
E) (0, 2)	go to 8



$$3x + 2y = -8$$

$$-x + 2y = 8$$

A) (-8, 8)	go to 3
B) (8, 8)	go to 2
C) (0, -4)	go to 6
D) (0, 4)	go to 11
E) (-4, 2)	go to 9



$$Y = 4x - 1$$

$$Y = -x + 4$$

A) (-2, 6)	go to 4
B) (2, 6)	go to 10
C) (1, 3)	go to 2
D) (-1, -3)	go to 9
E) No solution	go to 8

7

$$-3x - 8y = 20$$
$$-10x + 2y = 38$$

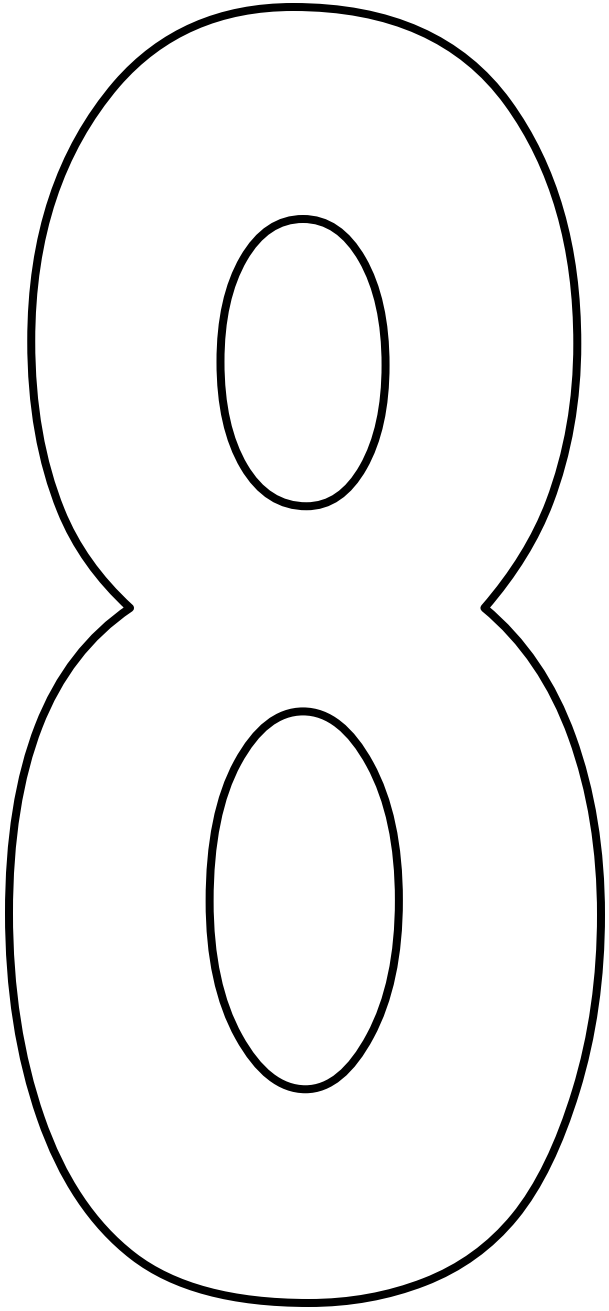
A) (4, -4) go to 12

B) (-3, 4) go to 10

C) (-4, -1) go to 6

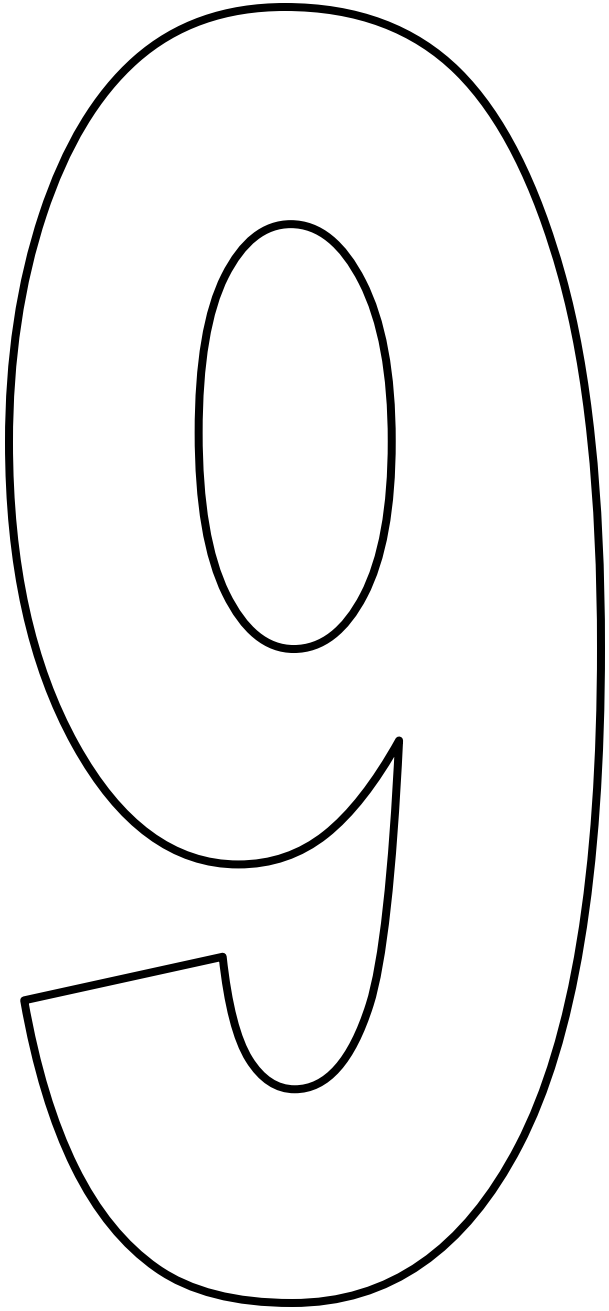
D) (-2, 9) go to 1

E) No solution go to 5



$$-5x - 8y = 17$$
$$2x - 7y = -17$$

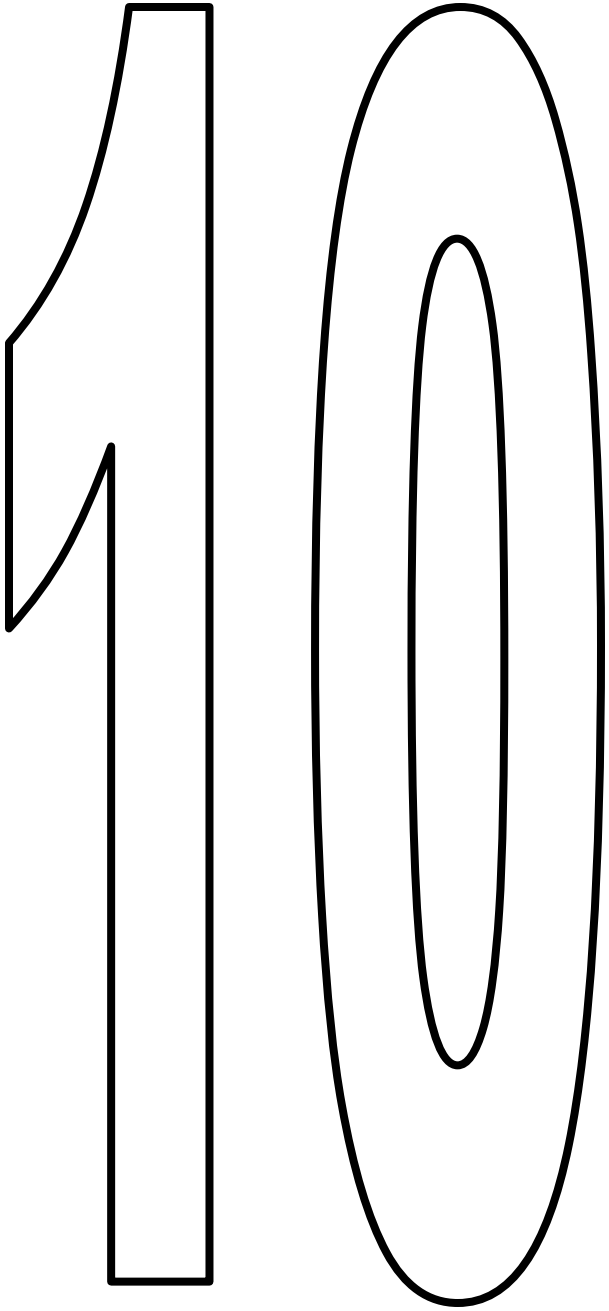
A) (1, -1)	go to 3
B) (-5, 1)	go to 1
C) (0, 3)	go to 6
D) (-1, 1)	go to 9
E) No solution	go to 8



$$Y = 5x - 7$$

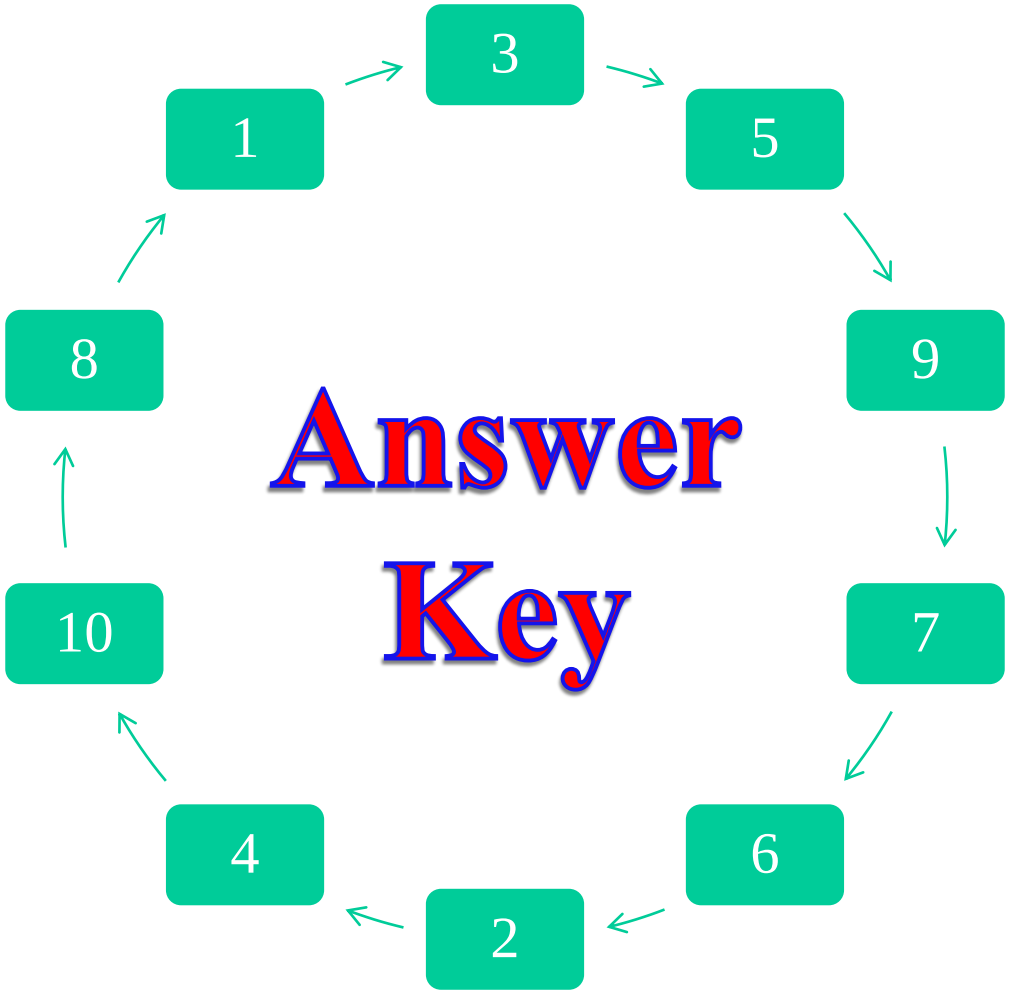
$$-3x - 2y = -12$$

A) (1, -2)	go to 6
B) (0, -7)	go to 10
C) (2, 3)	go to 7
D) (-3, 8)	go to 1
E) No solution	go to 5



Sun Light & Day Meh go to McDonald's. Sun Light buys 3 burgers and 4 fries for $15.25. Day Meh buys 5 burgers and 6 fries for $23.75. How much does each burger cost?

A) $2.50	go to 3
B) $2.25	go to 4
C) $2.00	go to 2
D) $1.75	go to 8
E) $1.50	go to 9



Begin with the student's group number. Follow the arrows to determine which station they should have visited next. For example, a student in group #7 should have begun with station #7. He should then travel to #6, followed by #2, then #4, and so on, until they have completed all 11 stations in order.

Thank you very much for your purchase. I hope you enjoy this activity! Please give me feedback & a rating! If you have any requests, comments, or corrections, please send me a message. At Teachers Pay Teachers, search for DAVID ROBERTSON or use this link:

http://www.teacherspayteachers.com/Store/David-Robertson

If you enjoyed this, you may also like some of my other activities:

EQUATION-SOLVING ACTIVITY: SELLING PIZZA!

SLOPE ACTIVITY: Ball Drop Lab

SLOPE-INTERCEPT ACTIVITY: Tower-Building Lab (with cups)

POINT-SLOPE AVTIVITY: Doing The Wave

SCATTER PLOT ACTIVITY: Celebrity Age-Guessing

JEOPARDY REVIEW GAME: GRAPHING LINES

SYSTEMS OF EQUATIONS ACTIVITY: Selling Burgers

JEOPARDY REVIEW GAME: SYSTEMS OF EQUATIONS

GRAPHING SYSTEMS OF EQUATIONS MAZE REVIEW GAME

SYSTEMS OF INEQUALITIES: REAL-WORLD PROBLEMS

GRAPHING QUADRATIC FUNCTIONS ROCKET LAUNCH ACTIVITY

JEOPARDY REVIEW GAME: QUADRATICS

JEOPARDY REVIEW GAME: EXPONENTS

JEOPARDY REVIEW GAME: POLYNOMIALS & FACTORING

JEOPARDY REVIEW GAME: MATRICES

Thanks again! – David Robertson, National Board Certified Math Teacher