ABC Sum Race: Systems of Equations

Directions

1. Students are placed in groups of three and asked to assign each person in the group a letter (A, B, or C) and identify a team leader.
2. The team leader comes to the front of the room to get a task card. The task contains three problems: A, B, and C.
3. Each team member solves the problem that corresponds to the letter he or she represents and records the answer on the scorecard.
4. Once all answers are recorded, the team adds the answers together to get a sum and records it on the scorecard as well.
5. The team leader brings the scorecard to the teacher to be checked. If correct, the group moves on to the next task card. If the sum is wrong, the team must check their work/redo and resubmit.

	A	B	C	SUM
1				
2				
3				
4				
5				

Names:

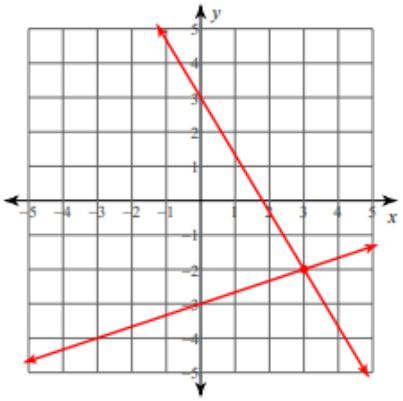
A _____

B _____

C _____

Card 1: Solve by Graphing

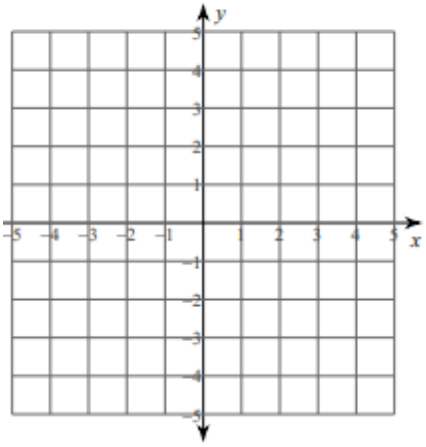
A



B

$y = 4x + 3$

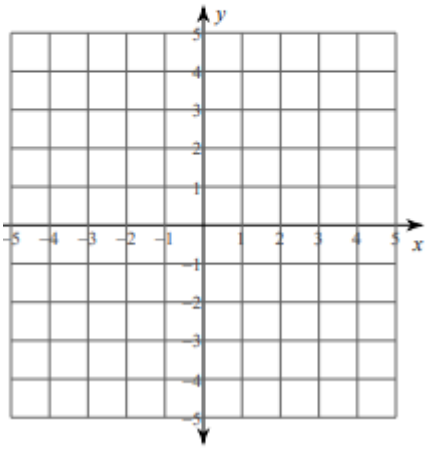
$y = -x - 2$



C

$y = -\frac{1}{2}x - 1$

$y = \frac{1}{4}x - 4$



Sum: Find the sum of the x values for each solution.

Card 2: Solve by Substitution
A $y = -2$ $4x - 3y = 18$
B $6x + 6y = -6$ $5x + y = -13$
C $2x + y = 20$ $6x - 5y = 12$
Sum: Find the sum of the x values for each solution

Card 3: Solve by Elimination
A $x - y = 11$ $2x + y = 19$
B $-6x + 5y = 1$ $6x + 4y = -10$
C $7x + 2y = 24$ $8x + 2y = 30$
Sum: Find the sum of the y values for each solution.

Card 4: Solve by the Method of Your Choice
A $5x + y = 9$ $10x - 7y = -18$
B $-7x + y = -19$ $-2x + 3y = -19$
C $16x - 10y = 10$ $-8x - 6y = 6$
Sum: Find the sum of the y values for each solution.

Card 5: Solve the Real World Problem Using Systems of Equations
A Find the value of two numbers if their sum is 12 and their difference is 4.
B The school that Stefan goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 3 senior citizen tickets and 1 child ticket for a total of $38. The school took in $52 on the second day by selling 3 senior citizen tickets and 2 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.
C The state fair is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 8 vans and 8 buses with 240 students. High School B rented and filled 4 vans and 1 bus with 54 students. Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.
Sum: Find the sum of all answers.