

STATION A

Is $(5, -4)$ the solution to the following system?

① $y = -x + 1$

② $2x - 5y = 30$

DO NOT SOLVE ALGEBRAICALLY! (do a check)

STATION B

Solve the system using the comparison/substitution method.

$$y = -2x + 8$$

$$y = 3x - 17$$

STATION C

Solve the system using the substitution method.

$$3x - 2y = 8$$

$$4x + y = 7$$

STATION D

Solve the system using the elimination method

$$3x + 5y = 1$$

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

STATION E

a) Without graphing or solving algebraically, determine the number of solutions for the linear system. Clearly explain your answer.

① $y = 3x + 5$

② $3x + 3y - 5 = 0$

b) A line is defined by the equation $2x + 4y = -8$. Determine the equation of another line that will create a linear system with an infinite number of solutions. Explain your choice.

STATION F

Ken's Kennel charges a \$150 flat rate plus \$35 per day to board a dog. Doggie Delight charges a \$90 flat rate plus \$50 per day to board a dog. Under what conditions is Doggie Delight cheaper?

STATION G

Two meshing gears in a printer have a total of 89 teeth. One of the gears has 4 teeth less than twice the number of teeth in the other gear. How many teeth does each gear have?

STATION H

The school athletic council sold 835 tickets to the championship football game for a total of \$5792. Students pay \$4 and non-students pay \$8. How many tickets were sold to students and to non-students?

STATION I

Amani put part of the \$750 in a savings account that earns 4% interest per year and the rest in a chequing account that pays 2% per year. If the total interest for a year was \$27, how much was put in each account?