Solving Systems of Equations Unit Review
Buckets Activity
Cards

C – Choice Cards (Set up and Solve using Substitution or Elimination)

E – Elimination Cards (Solve using the Elimination Method)

G – Graphing Equations Cards (Solve Equations by Graphing)

S – Substitution Cards (Solve using the Substitution Method)

I – Graphing Inequalities Cards (Solve Inequalities by Graphing)

Algebra IB
Unit 2 Review - Systems of Equations
Choice Cards – set up and solve using Substitution or Elimination

C1:

Grandma's Bakery sells single-crust apple pies for $6.99 and double-crust pies for $10.99. The total number of pies sold on Friday was 36. If the amount collected for all the pies that day was $331.64. How many of each type were sold?

C2:

A Honda dealership sells both motorcycles and cars. There are a total of 200 vehicles on the dealership's lot. The detailer cleaned all the wheels of all the vehicles, which totaled 698 wheels. How many motorcycles and cars are there on the lot?

C3:

Jack has a collection of new nickels and quarters. He has a total of 50 coins worth $10.30. How many of each coin does he have?

C4:

For breakfast, Randy had two Egg McMuffins and a hash brown, totaling 750 calories. Jack only had one Egg McMuffin and a hash brown, totaling 450 calories. How many calories are in each item?

C5:

Marcy has a total of 100 dimes and quarters. If the total value of the coins is $14.05. How many dimes and quarters does Marcy have?

Algebra IB
Unit 2 Review - Systems of Equations
Elimination Cards

E1:

At Lowes you purchase 8 gallons of paint and 3 paint brushes for $152.50. The next day, you go back and purchase another 6 gallons of paint and 2 brushes for $113.00. Solve the following system of equations to determine how much each gallon of paint and each paint brush cost.

Let g = the cost of a gallon of paint

Let b = the cost of each paint brush

$8g + 3b = \$152.50$

$6g + 2b = \$113.00$

E2:

Shopping at Meijer, Lisa buys her children four shirts and three pairs of pants for $85.50. She returns the next day and buys three shirts and five pairs of pants for $115.00. What is the individual price of each shirt and pair of pants?

Let p = the price for a pair of pants

Let h = the price for each shirt

$4h + 3p = \$85.50$

$3h + 5p = \$115.00$

E3:

Mrs. Ailstock went to Wal-Mart and bought three rolls of streamers and 15 party hats for $30. Later, she went back and bought 2 more rolls of streamers and four party hats for $11. How much did each roll of streamers and party hats cost?

Let r = cost per roll of streamers

Let h = cost per party hat

$3r + 15h = \$30$

$2r + 4h = \$11$

E4:

Two groups of people went to see Avatar in IMAX 3-D. The first group spent $73.50 on two adult and three children tickets. The other group spent $109.50 on five adult and two children tickets. What is the cost of each type of ticket?

Let a = cost per adult ticket $\qquad 2a + 3c = 73.50$

Let c = cost per student ticket $\qquad 5a + 2c = 109.50$

E5:

At Burger World, two burgers and three orders of fries cost $19.75. Five burgers and two orders of fries cost $37. What is the cost for each burger and an order of fries?

Let b = cost of burgers $\qquad 2b + 3f = 19.75$

Let f = cost of fries $\qquad 5b + 2f = 37.00$

E6:

At Steak Universe, three steak burgers and two orders of fries cost $18. Two steak burgers and three orders of fries cost $15.75. What is the cost for one steak burger?

Let b = cost of burgers $\qquad 3b + 2f = 18.00$

Let f = cost of fries $\qquad 2b + 3f = 15.75$

E7:

For lunch, Jack had a Big Mac and two small fries containing 1000 calories. Randy had three Big Macs and two small fries for 2080 calories. How many calories are in each item?

Let b = calories in a Big Mac $\qquad 1b + 2f = 1000$

Let f = calories in an order of fries $\qquad 3b + 2f = 2080$

E8:

For dinner, Randy had 10 chicken nuggets and a medium fry for 840 calories. Jack had 6 chicken nuggets and two medium fries for 1036 calories. How many calories are in each item?

Let n = calories in a nugget $10n + 1f = 840$

Let f = calories in an order of fries $6n + 2f = 1036$

E9:

On a recent trip to Steak N' Shake, Bob and Sally spent $19.75 on two steak burgers and three orders of fries. On another trip, they spent $24.00 on three steak burgers and two orders of fries. What is the cost of each item?

Let b = cost of a steak burger $2b + 3f = 19.75$

Let f = cost of an order of fries $3b + 2f = 24$

G1:

The sum of two numbers is 13. Their difference is 15. What are the two numbers?

Let x = one number $x + y = 13$

Let y = another number $x - y = 15$

G2:

Nate Kaeding, the place kicker for the San Diego Chargers, scored 15 points in a game. He scored all his points on 1-point extra point kicks and 3-point field goals. He made a total of 7 kicks for the game. How many of each kick has he made?

Let x = number of extra point kicks $x + y = 7$

Let y = number of field goals $x + 3y = 15$

G3:

Mac's wallet is full of $1 and $5 dollar bills. He has 16 bills totaling $60. How many of each bill does he have?

Let x = number of $1 bills $x + y = 16$

Let y = number of $5 bills $x + 5y = 60$

G4:

Quentin was challenged to a half-court shooting competition. For every half-court shot that he makes, he will earn 20 points. For each half-court shot he misses, he will lose 5 points. After 15 half-court shots, Quentin has zero points. How many shots did Quentin make and how many did he miss?

Let x = number of made shots $x + y = 15$

Let y = number of missed shots $20x - 5y = 0$

G5:

On December 13th, versus the Washington Wizards, Shaquille O'Neal, scored his season high in points, 24. His 24 points were scored all on free throws (worth 1 point) and two-point baskets. He made a total of 16 shots. How many two-point baskets and free throws did Shaq make?

Let x = number of free throws $x + y = 16$

Let y = number of 2-point baskets $1x + 2y = 24$

G6:

On November 4th, against the Houston Rockets, Ron Artest scored a total of 15 points, making a total of 7 shots. He scored all his points on 2-point and 3-point shots. How many of each type of shot did he make?

Let x = number of 2-point shots $x + y = 7$

Let y = number of 3-point shots $2x + 3y = 15$

Algebra IB
Unit 2 Review – Systems of Equations
Substitution Cards

S1:

A McDonald's apple pie has 90 more calories than their chocolate chip cookie. Two apple pies and three chocolate chip cookies have a total of 980 calories. How many calories are in each item?

Let a = # of calories in an apple pie $a = c + 90$

Let c = # of calories in a cookie $2a + 3c = 980$

S2:

On November 4th, against the Houston Rockets, Ron Artest scored a total of 15 points, scoring all his points on 2-point and 3-point shots. He made three more 2-pointers than 3-pointers. How many of each type of shot did he make?

Let p = number of 2-point shots $p + s = 15$

Let s = number of 3-point shots $s = p + 3$

S3:

At Billy's school, they have bicycles and tricycles, with a total of 57 wheels. The number of bicycles is three less than three times the number of tricycles. How much of each type of bike are there?

Let b = # of bicycles $2b + 3t = 57$

Let t = # of tricycles $b = 3t - 3$

S4:

A chocolate chip cookie has 10 more calories than an ice cream cone. Together they have a total of 310 calories. How many calories does each contain?

Let k = # of calories in a cookie $k + m = 310$

Let m = # of calories in an ice cream cone $k = m + 10$

S5:

A cheeseburger has 200 fewer calories than a large fry. Two cheeseburgers and a large fry have 1100 calories. How many calories does each contain?

Let c = # of calories in a cheeseburger $2c + f = 1100$

Let f = # of calories in a large fry order $c = f - 200$

S6:

A packet of ranch dressing has 10 more calories than eight side salads. Three side salads and two packets of ranch dressing have a total of 400 calories. How many calories are in each item?

Let r = # of calories in ranch dressing $3c + 2r = 400$

Let c = # of calories in a side salad $r = 8c + 10$

S7:

A large McDonald's chocolate milkshake has 720 more calories than a double cheeseburger. Two double cheeseburgers and the large chocolate shake have a total of 2040 calories. How many calories are in each item?

Let m = # of calories in a milkshake $2b + m = 2040$

Let b = # of calories in a cheeseburger $m = b + 720$

S8:

Nate Kaeding, the place kicker for the San Diego Chargers, has scored 120 points so far this season. He has scored all his points on 1-point extra point kicks and 3-point field goals. He has made 12 more extra point kicks than field goals. How many of each kick has he made?

Let e = # of extra point kicks $e + f = 120$

Let f = # of field goals $e = f + 12$