Algebra 21 Bellwork Tuesday, January 6, 2015

Solve each system of equations using Substitution. Give answers as ordered pairs.

1.

$P = \frac{5}{3}Q - 7$

$P = \frac{7}{6}Q - 4$

2.

$h = 3g + 5$

$7g - 2h = -8$

3.

$m + n = 80$

$8m + 5n = 481$

4.

$4j - 7k = -39$

$3j + 9k = 42$

5. A group of friends went to a ballgame. At the ballgam they bought some hot dogs and some pizza slices.

The number of pizza slices was one less than than twice the number of hot dogs.

Pizza slices cost $3 each and hot dogs cost $2.50 each. They spent a total of $48.

a) Write a system of equations to model this situation. Define your variables.

b) Solve this system of equations to find the number of pizza slices and hot dogs purchased.

Algebra 2 1 Bellwork Tuesday, January 6, 2015 ANSWERS

Solve each system of equations using Substitution. Give answers as ordered pairs.

1.

$P = \frac{5}{3}Q - 7$

$P = \frac{7}{6}Q - 4$

(6, 3)

2.

$h = 3g + 5$

$7g - 2h = -8$

(2, 11)

3.

$m + n = 80$

$8m + 5n = 481$

(27, 53)

4.

$4j - 7k = -39$

$3j + 9k = 42$

(−1, 5)

5. A group of friends went to a ballgame. At the ballgam they bought some hot dogs and some pizza slices.

The number of pizza slices was one less than than twice the number of hot dogs.

Pizza slices cost $3 each and hot dogs cost $2.50 each. They spent a total of $48.

P = # pizza slices

H = # hot dogs

a) Write a system of equations to model this situation. Define your variables.

$P = 2H - 1$ $3P + 2.50H = 48$

b) Solve this system of equations to find the number of pizza slices and hot dogs purchased.

6 Hot Dogs

11 pizza slices