Algebra 1 ECA Remediation   Name _Answer Key_

Homework 19.2

1. Ming and Jenny are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of holiday wrapping paper. Ming sold 3 rolls of plain wrapping paper and 11 rolls of holiday wrapping paper for a total of $243. Jenny sold 7 rolls of plain wrapping paper and 13 rolls of holiday wrapping paper for a total of $339. Write a system of equations that can be used to determine the cost of one roll of plain wrapping paper (P) and one roll of holiday wrapping paper (H).

Answer $\dfrac{3P + 11H = 243}{7P + 13H = 339}$

	Ming	Jenny
plain	3	7
holiday	11	13
Total	243	339

What is the cost of one roll of holiday wrapping paper?

Answer $18

$$3P + 11H = 243 \quad ①$$
$$7P + 13H = 339 \quad ②$$

$$-21P + 77H = 1701 \quad ①$$
$$-21P - 39H = -1017$$
$$\overline{\qquad\qquad}$$
$$\dfrac{38H}{38} = \dfrac{684}{38}$$
$$H = \$18$$

2. The senior classes at High School A and High School B planned separate trips to the water park. The senior class at High School A rented and filled 1 van and 12 buses with 515 students. High School B rented and filled 12 vans and 6 buses with 384 students. Each van and each bus carried the same number of students. Write a system of equations that can be used to determine the number of students each van holds (V) and the number of students each bus holds (B).

Answer $\dfrac{1V + 12B = 515}{12V + 6B = 384}$

	School A	School B
Vans	1	12
Buses	12	6
Totals	515	384

How many students does each van hold?

Answer 11 students

$$1V + 12B = 515 \quad ①$$
$$12V + 6B = 384 \quad ②$$

$$1V + 12B = 515$$
$$-24V - 12B = -768$$
$$\overline{\qquad\qquad}$$
$$-23V \qquad = -253$$
$$V = 11$$

Homework 19.2

3.   Lea's school is selling tickets to a play. On the first day of ticket sales the school sold 14
adult tickets and 2 student tickets for a total of $180.40. The school took in $222.20 on
the second day by selling 7 adult tickets and 11 student tickets. Write a system of
equations that can be used to find the cost a one senior citizen ticket (A) and one student
ticket (S).

$$14A + 2S = 180.40$$

Answer ___$7A + 11S = 222.20$___

	Day 1	Day 2
Adult	14	7
Student	2	11
Total	$180.40	$222.20

What is the cost of one student ticket?

Answer ___$13.20___

$$14A + 2S = 180.40 \quad ①$$
$$7A + 11S = 222.20 \quad ②$$

$$14A + 2S = 180.40$$
$$-14A - 22S = -444.40$$
$$\overline{\qquad\qquad}$$
$$-20S = -264$$
$$\frac{-20S}{-20} = \frac{-264}{-20}$$
$$S = \$13.20$$