Algebra 1 ECA Remediation **Name** Answer Key

Homework 14.3

1. Bob sells cars and earns a base salary of $500 per week plus $180 for each car he sells.

   Write an equation to represent the total amount of money Bob earns in a week (m) if he sells (c) cars.

   Answer $M = 180c + 500$

   $\$500$ base salary
   $\$180$ each car
   $M = 180c + 500$

   If Bob made $2120 last week, how many cars did he sell?

   Answer 9 cars

   $2120 = 180c + 500$
   $-500 \quad -500$
   $\frac{1620}{180} = \frac{180c}{180}$
   $c = 9$

2. An amusement park charges $70 for each adult ticket and $45 for each child ticket. One group's total cost was $570.

   Write an equation to represent the number of adult tickets (a) and the number of child tickets (c) that the group bought considering they spent $570.

   Answer $70a + 45c = 570$

   Adult $= \$70$
   Child $= \$45$
   Total $\$570$
   $70a + 45c = 570$

   If there were 3 adults in the group, how many children were there in the group?

   Answer 8 children

   $a = 3$
   $70(3) + 45c = 570$
   $210 + 45c = 570$
   $-210 \quad -210$
   $\frac{45c}{45} = \frac{360}{45}$
   $c = 8$

3. A taxi cab charges a flat fee of $2.00 plus $1.75 for each mile.

   Write an equation to represent the cost (c) of a cab ride that travels (m) miles.

   Answer $C = 1.75m + 2.00$

   flat fee $\$2.00$
   each mile $\$1.75$
   $C = 1.75m + 2.00$

   If my last cab ride cost a total of $40.50, how many miles did I travel?

   Answer 22 miles

   $40.50 = 1.75m + 2.00$
   $-2.00 \quad -2.00$
   $\frac{38.50}{1.75} = \frac{1.75m}{1.75}$
   $22 = m$

Algebra 1 ECA Remediation **Name** Answer Key

Homework 14.3

4. Emily has $40 to spend on ground beef and chicken for a party. The beef costs $5 per pound and the chicken costs $4 per pound.

   Write an equation to represent the number of pounds of beef (b) and the number of pounds of chicken (c) that Emily can buy for $40.

   Answer $5b+4c=40$

   Beef → #5
   Chicken → #4
   Total #40

   $5b+4c=40$

   If Emily buys 5 pounds of chicken, how many pounds of beef can she buy?

   Answer 4 lbs of chicken

   $c = 5$ lbs

   $5b+4(5)=40$

   $5b+20=40$

   $-20 \quad -20$

   $\frac{5b}{5} = \frac{20}{5}$

   $b=4$

Homework Answers

1. m = 180c + 500; 9
2. 70a + 45c = 570; 8
3. c = 1.75m + 2.00; 22
4. 5b + 4c = 40; 4