Algebra 1 ECA Remediation

Name Answer Key

Homework 5.~~3~~ 2

1) Shanice bought three candy bars for a total of $3.81.

A. Write an inequality that Shanice can use to deteremine how many candy bars she can purchased with $10.

unit price $= \frac{\$3.81}{3} = \$1.27$

$\boxed{10 \geq 1.27c}$

c = # of candy bars bought

B. How many candy bars can Shanice buy with $10?

$\frac{10}{1.27} \geq \frac{1.27c}{1.27}$

$7.87 \geq c$

Shanice can buy 7 candy bars

2) Tammy was able to purchase 8 packages of diapers for $56.

A. Write an inequality that Tammy can use to determine the maximum number of packages of diapers that she purchase with only $40.

unit price $= \frac{\$56}{8} = \$7$

$\boxed{40 \geq 7x}$

x = # of pachages bought.

B. What is the maximum number of packages of diapers that Tammy can purchase with only $40?

$\frac{40}{7} \geq \frac{7x}{7}$

$5.71 \geq x$

Tammy can purchase 5 packages of diapers

3) You had $23 to spend on seven raffle tickets. After buying them you had $9 left over to go to the movies.

A. Write an inequality that can be used to determine the maximum number of raffle tickets your sister can purchase if she also needs $9 dollars for the movies and has $19 to start with.

r = price of one raffle ticket

x = # of raffle tickets bought

$\$23$ total

7 raffle tickets

$\$9$ left over

$23 = 7r + 9$

$-9 \quad -9$

$\frac{14}{7} = \frac{7r}{7}$

$\$2 = r$

$\boxed{19 \geq 9 + 2x}$

B. What is the maximum number of raffle tickets your sister can purchase with $19, and still have $9 left over to go with you to the movies?

$19 \geq 9 + 2x$

$-9 \quad -9$

$\frac{10}{2} \geq \frac{2x}{2}$

$5 \geq x$

you can purchase 5 raffle tickets

4) 184 students went on a field trip. It takes 3 full buses and 22 students still had to traveled in cars.

A. Write an inequality to determine the minimum number of buses that are needed to transport 212 students on the next field trip if no cars are available.

184 total

3 full buses

+ 22 students.

b = # of students per bus

x = # of buses used on the trip

$184 = 3b + 22$

$-22 \quad -22$

$\frac{162}{3} = \frac{3b}{3}$

$54 = b$

$\boxed{212 \leq 54x}$

B. How many buses are needed to transport 212 students on a field trip without the help of any cars?

$\frac{212}{54} \leq \frac{54x}{54}$

$3.92 \leq x$

They need at least 4 buses for the field-trip

Solve each proportion.

5) $\frac{x-3}{4} = \frac{4}{2}$

$2(x-3) = 4(4)$

$2x - 6 = 16$

$+6 \quad +6$

$\frac{2x}{2} = \frac{22}{2}$

$x = 11$

6) $\frac{7}{5} = \frac{4-3x}{10}$

$7(10) = 5(4-3x)$

$70 = 20 - 15x$

$-20 \quad -20$

$\frac{50}{-15} = \frac{-15x}{-15}$

$-\frac{10}{3} = -3\frac{1}{3} = x$

OR $-3.\overline{3}$