Algebra 1 ECA Remediation

Name Answer Key

Homework 5.2 1

1) Bill spent $14 on seven toy cars.

A. Write an inequality that can be used to determine the maximum number of toy cars that can purchased with $9.75.

unit price $= \frac{\$14}{7} = \$2$

x = # of toy cars bought

$\$9.75 \geq 2x$

B. What is the maximum number of toy cars that can be purchased with $9.75?

$\frac{9.75}{2} \geq \frac{2x}{2}$

$4.875 \geq x$

Bill can buy 4 toy cars

2) You purchase 3 boxes of envelopes for $10.17.

A. Write an inequality that can be used to determine the maximum number of boxes of envelopes that can be purchases with a budget of $25.

unit price $= \frac{\$10.17}{3} = \$3.39$

x = # of boxes bought

$25 \geq 3.39x$

B. What is the maximum number of boxes of envelopes that can be purchased with $25?

$\frac{25}{3.39} \geq \frac{3.39x}{3.39}$

$7.37 \geq x$

you can buy 7 boxes of envelopes

3) Ming's Bikes rents bikes for $18 plus an hourly rate. Lea paid $33 to rent a bike for 5 hours.

A. Write an inequality that can be used to determine the number of hours that Lea can rent a bike for if she has $40.

r = hourly rate

$\$18$ + hourly rate

$\$33$ total

5 hrs

$40 \geq 18 + 3x$

$33 = 18 + 5r$

$-18 \quad -18$

$\frac{15}{5} = \frac{5r}{5}$

$\$3 = r$

B. What is the maximum number of hours that Lea can rent the bike for if she has $40?

x = # of hours rented.

$40 \geq 18 + 3x$

$-18 \quad -18$

$\frac{22}{3} \geq \frac{3x}{3}$

$7.\overline{3} \geq x$

Lea can rent the bike for 7 hours

4) You bought a magazine for $5 and ~~some~~ 4 notebooks for $16.

A. Write an inequality that can be used to determine the maximum number of notebooks that can be purchased along with one magazine if you only have $13.50.

one $\$5$ magazine

$\$16$ Total

n = unit price of one notebook

$16 = 5 + 4n$

$-5 \quad -5$

$\frac{11}{4} = \frac{4n}{4}$

$\$2.75 = n$

$13.50 \geq 5 + 2.75x$

B. What is the maximum number of notebooks that can be purchased along with one $5 magazine, if you only have $13.50?

x = # of notebooks bought

$13.50 \geq 5 + 2.75x$

$-5 \quad -5$

$\frac{8.50}{2.75} \geq \frac{2.75x}{2.75}$

$3.0\overline{9} \geq x$

you can buy 3 notebooks

Solve each proportion.

5) $\frac{6}{8} = \frac{(7n - 14)}{7}$

$6(7) = 8(7n - 14)$

$42 = 56n - 112$

$+112 \quad +112$

$\frac{154}{56} = \frac{56n}{56}$

$2.75 = n$

6) $\frac{(x - 6)}{9} = \frac{4}{2}$

$2(x - 6) = 9(4)$

$2x - 12 = 36$

$+12 \quad +12$

$\frac{2n}{2} = \frac{48}{2}$

$n = 24$