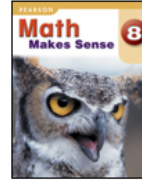




Warm Up Grade 8

April 26, 2017



SHOW ALL WORK

Distribute and solve using algebra

1) a)  $6(x - 8) = 24$

$6x - 48 = 24$

$6x - 48 + 48 = 24 + 48$

$\frac{6x}{6} = \frac{72}{6}$

$x = 12$

b)  $-3(x - 7) = 9$

$-3x + 21 = 9$

$-3x + 21 - 21 = 9 - 21$

$-3x = -12$

$x = 4$

2) Solve using algebra

$3k - 30 = 57$

$3k - 30 + 30 = 57 + 30$

$\frac{3k}{3} = \frac{87}{3}$

$k = 29$



Warm Up Grade 8  
Similar to test question



#3)

i)

ii)

iii)

(iv)

(v)

For the problem, state the variable, write and solve the equation, verify and give a statement.

Sally has a cell phone that has a monthly charge of \$20 plus an additional \$0.05 for each call or text that is made. If Sally's bill last month was \$80.20, how many call/texts did she make?

i) let  $x$  represent # of calls  $\leftarrow x$  represent

ii)  $0.05x + 20 = 80.20$

iii)  $0.05x + 20 = 80.20$

$$0.05x + 20 - 20 = 80.20 - 20$$

$$0.05x = 60.20$$

$$\frac{0.05x}{0.05} = \frac{60.20}{0.05}$$

$$x = 1204$$

v) For the Bill to be \$80.20 she made 1204 calls or text.

iv) Check

$$0.05x + 20$$

80.20

$$x = 1204$$

$$0.05(1204) + 20$$

$$60.20 + 20$$

$$80.20$$

Same

pg 347

$$\begin{aligned}
 4a) \quad 3(x+5) &= 36 \\
 3x+15 &= 36 \\
 3x+15-15 &= 36-15 \\
 3x &= 21 \\
 \frac{3x}{3} &= \frac{21}{3} \\
 x &= 7
 \end{aligned}$$

$$\begin{array}{l}
 \text{LS} \\
 3(x+5) \\
 3(7+5) \\
 3 \times 12 \\
 36
 \end{array}
 \qquad
 \begin{array}{l}
 \text{RS} \\
 36
 \end{array}$$

$$\begin{aligned}
 b) \quad 4(p-6) &= 36 \\
 4p-24 &= 36 \\
 4p-24+24 &= 36+24 \\
 4p &= 60 \\
 \frac{4p}{4} &= \frac{60}{4} \\
 p &= 15
 \end{aligned}$$

$$\begin{array}{l}
 \text{LS} \\
 4(p-6) \\
 4(15-6) \\
 4 \times 9 \\
 36
 \end{array}
 \qquad
 \begin{array}{l}
 \text{RS} \\
 36
 \end{array}$$

$$\begin{aligned}
 c) \quad 5(y+2) &= 25 \\
 5y+10 &= 25 \\
 5y+10-10 &= 25-10 \\
 5y &= 15 \\
 \frac{5y}{5} &= \frac{15}{5} \\
 y &= 3
 \end{aligned}$$

$$\begin{array}{l}
 \text{LS} \\
 5(y+2) \\
 5(3+2) \\
 5 \times 5 \\
 25
 \end{array}
 \qquad
 \begin{array}{l}
 \text{RS} \\
 25
 \end{array}$$

$$\begin{aligned}
 d) \quad 10(a+8) &= 30 \\
 10a+80 &= 30 \\
 10a+80-80 &= 30-80 \\
 10a &= -50 \\
 \frac{10a}{10} &= \frac{-50}{10} \\
 a &= -5
 \end{aligned}$$

$$\begin{array}{l}
 \text{LS} \\
 10(a+8) \\
 10(-5+8) \\
 10 \times 3 \\
 30
 \end{array}
 \qquad
 \begin{array}{l}
 \text{RS} \\
 30
 \end{array}$$

$$\begin{aligned} \text{5a) } -2(a+4) &= 18 \\ -2a - 8 &= 18 \\ -2a - 8 + 8 &= 18 + 8 \\ -2a &= 26 \\ \frac{-2a}{-2} &= \frac{26}{-2} \\ a &= -13 \end{aligned}$$

$$-2a + (-8)$$

$$\begin{array}{ll} \text{LS} & \text{RS} \\ -2(a+4) & 18 \\ -2(-13+4) & \\ -2 \times -9 & \\ 18 & \end{array}$$

$$\begin{aligned} \text{b) } -3(r-5) &= -27 \\ -3r + 15 &= -27 \\ -3r + 15 - 15 &= -27 - 15 \\ -3r &= -42 \\ \frac{-3r}{-3} &= \frac{-42}{-3} \\ r &= +14 \end{aligned}$$

$$\begin{array}{ll} \text{LS} & \text{RS} \\ -3(r-5) & -27 \\ -3(14-5) & \\ -3 \times 9 & \\ -27 & \end{array}$$

$$\begin{aligned} \text{c) } 7(-y+2) &= 28 \\ -7y + 14 &= 28 \\ -7y + 14 - 14 &= 28 - 14 \\ -7y &= 14 \\ \frac{-7y}{-7} &= \frac{14}{-7} \\ y &= -2 \end{aligned}$$

$$\begin{array}{l} -y \\ -1(-2) \end{array}$$

$$\begin{array}{ll} \text{LS} & \text{R} \\ 7(-y+2) & 28 \\ 7(-1(-2)+2) & \\ 7(2+2) & \\ 7 \times 4 & \\ 28 & \end{array}$$

$$\begin{aligned} \text{d) } -6(c-9) &= -42 \\ -6c - (-54) &= -42 \\ -6c - (-54) + (-54) &= -42 + (-54) \\ -6c &= -96 \\ \frac{-6c}{-6} &= \frac{-96}{-6} \\ c &= 16 \end{aligned}$$

$$\begin{array}{l} -6c + 54 = -42 \\ -6c + 54 - 54 = -42 - 54 \\ -6c = -96 \end{array}$$

$$\begin{array}{ll} \text{LS} & \text{R} \\ -6(c-9) & -42 \\ -6(16-9) & \\ -6 \times 7 & \\ -42 & \end{array}$$

b  $c =$  cards started with

$$2(c+3) = 20$$

$$2c + 6 = 20$$

$$2c + 6 - 6 = 20 - 6$$

$$2c = 14$$

$$\frac{2c}{2} = \frac{14}{2}$$

$$c = 7$$

LS	RS
$2(c+3)$	20
$2(7+3)$	
$2 \times 10$	
20	

He started with 7 cards.

7. Discuss.

8.



$$P = \text{stststst}$$

$$2b = 8 + w + 8 + w$$

$$2b = 16 + 2w$$

$$2b - 16 = 16 + 2w - 16$$

$$10 = 2w$$

$$\frac{10}{2} = \frac{2w}{2}$$

$$5 = w$$

$$\begin{array}{l} \text{LS} \\ 2b \end{array}$$

$$\begin{array}{l} \text{RS} \\ 16 + 2w \\ 16 + 2 \times 5 \\ 16 + 10 \\ 26 \end{array}$$

The width is 5cm

9  $n$  = price before reduced  
 $n - 5$  = reduced price

$$b(n - 5) = 90$$

$$bn - 30 = 90$$

$$bn - 30 + 30 = 90 + 30$$

$$bn = 120$$

$$\frac{bn}{b} = \frac{120}{b}$$

$$n = 20$$

LS

RS

The regular price of the t-shirts was \$20.

# Class/Homework

Test TOMORROW, April 27

pg. 347 # 10,

page 350

#1, #2, #3, #4, #7, #9, #10

model only 1c

## Test outline

5 MC

6 Short Response

#1 Draw tiles and solve an equation

~~#2 Use Algebra tiles or box method to prove distributive property~~

#3 For each problem, state the variable, write and solve the equation and give a statement. (Like warm up)

#4 Solve Ex)  $2(x-3)=16$

#5 For each of the following tell whether the pair of expressions is equivalent or not.

#6 (Is it correct if yes then verify if no then redo)

## Attachments

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Extra Practice 5 Solve equation using distributive prop.pdf