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10.  $c$  = cost of ticket $ct6$  = cost for each person

$$8(ct6) = 264$$

$$8c + 48 = 264$$

$$8c + 48 - 48 = 264 - 48$$

$$8c = 216$$

$$\frac{8c}{8} = \frac{216}{8}$$

Cost of red ticket was \$27 ( $c = 27$ )

$$\begin{array}{l} \text{LS} \\ 8(ct6) \\ 8(27+6) \\ 8 \times 33 \\ 264 \end{array}$$

$$\begin{array}{l} \text{RS} \\ 264 \end{array}$$

11.  $n$  = the integer

$$-5(n+9) = 15$$

$$-5n + (-45) = 15$$

$$-5n - 45 + 45 = 15 + 45$$

$$-5n = 60$$

$$\frac{-5n}{-5} = \frac{60}{-5}$$

$$n = -12$$

The integer is -12

$$\begin{array}{l} \text{LS} \\ -5(n+9) \\ -5(-12+9) \\ -5 \times -3 \\ 15 \end{array}$$

$$\begin{array}{l} \text{RS} \\ 15 \end{array}$$

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

Homework  
Solutions

$$1a) \frac{4x}{4} = \frac{-36}{4}$$

$$x = -9$$

$$b) -7x = 63$$

$$\frac{-7x}{-7} = \frac{63}{-7}$$

$$x = -9$$

$$c) 4x + 7 = 19$$

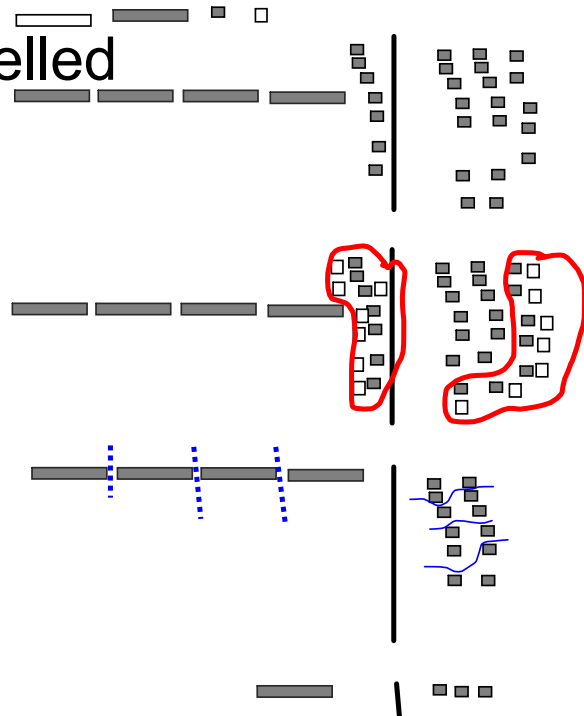
$$4x + 7 - 7 = 19 - 7$$

$$4x = 12$$

$$\frac{4x}{4} = \frac{12}{4}$$

$$x = 3$$

4c modelled



$$d) -3x + 5 = 17$$

$$-3x + 5 - 5 = 17 - 5$$

$$-3x = 12$$

$$\frac{-3x}{-3} = \frac{12}{-3}$$

$$x = -4$$

2  $g$  = number of bars

$$3g + 4 = 13$$

$$3g + 4 - 4 = 13 - 4$$

$$3g = 9$$

$$\frac{3g}{3} = \frac{9}{3}$$

$$g = 3$$

Alice has 3 bars.

$\begin{array}{l} \text{LS} \\ 3g + 4 \\ 3 \times 3 + 4 \\ 9 + 4 \\ 13 \end{array}$	$\begin{array}{l} \text{RS} \\ 13 \end{array}$
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3)

a)  $4x + 9 = -27$

$$4x + 9 - 9 = -27 - 9$$

$$4x = -36$$

$$\frac{4x}{4} = \frac{-36}{4}$$

$$x = -9$$

$$x = -9$$

b)  $-5x + 8 = 23$

$$-5x + 8 - 8 = 23 - 8$$

$$-5x = 25$$

$$\frac{-5x}{-5} = \frac{25}{-5}$$

$$x = -5$$

$$x = -5$$

c)  $3x - 4 = -3$

$$3x - 4 + 4 = -3 + 4$$

$$3x = 1$$

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

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

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

c)  $10 = 6x + 5$

$$6x + 5 = 10$$

$$6x + 5 - 5 = 10 - 5$$

$$6x = 5$$

$$\frac{6x}{6} = \frac{5}{6}$$

$$x = \frac{5}{6}$$

$$x = \frac{5}{6}$$

4.  $p$  = number of people

$$12p + 125 = 545$$

$$12p + 125 - 125 = 545 - 125$$

$$12p = 420$$

$$\frac{12p}{12} = \frac{420}{12}$$

$$p = 35$$

35 people attended the banquet

$$\begin{array}{r} \text{LJ} \\ 12p + 125 \\ 12 \times 35 + 125 \\ 420 + 125 \\ 545 \end{array} \quad \begin{array}{r} \text{RJ} \\ 545 \end{array}$$

5a)  $\frac{n}{4} = -8$

$$4 \times \frac{n}{4} = -8 \times 4$$

$$n = -32$$

b)  $\frac{m}{3} - 2 = 3$

$$\frac{m}{3} - 2 = 3 + 2$$

$$\frac{m}{3} = 5$$

$$3 \times \frac{m}{3} = 5 \times 3$$

$$m = 15$$

c)  $\frac{b}{-3} = 6$

$$-3 \times \frac{b}{-3} = 6 \times -3$$

$$b = -18$$

d)  $\frac{f}{-8} + 8 = 12$

$$\frac{f}{-8} + 8 = 12 - 8$$

$$\frac{f}{-8} = 4$$

$$-8 \times \frac{f}{-8} = 4 \times -8$$

$$f = -32$$

6)  $\frac{n}{-7} = 4$

$$-7 \times \frac{n}{-7} = 4 \times -7$$

$$n = -28$$

b)  $\frac{p}{9} = -3$

$$-9 \times \frac{p}{9} = -3 \times -9$$

$$p = 27$$

c)  $\frac{n}{2} + 5 = 0$

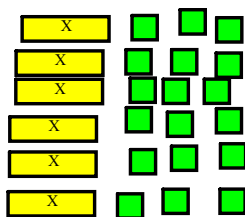
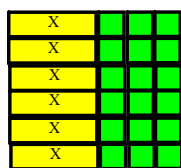
$$\frac{n}{2} + 5 = 0 - 5$$

$$\frac{n}{2} = -5$$

$$-2 \times \frac{n}{2} = -5 \times -2$$

$$n = 10$$

$$7. 6(a+3) = 18+6a$$



8. orally

$$\begin{aligned} 9 \text{ a) } 3(x+2) &= 21 \\ 3x+6 &= 21 \\ 3x+6-6 &= 21-6 \\ 3x &= 15 \\ \frac{3x}{3} &= \frac{15}{3} \\ x &= 5 \end{aligned}$$

verify

$$\begin{aligned} \text{b) } 4(p-3) &= 16 \\ 4p-12 &= 16 \\ 4p-12+12 &= 16+12 \\ 4p &= 28 \\ \frac{4p}{4} &= \frac{28}{4} \\ p &= 7 \end{aligned}$$

$$\begin{aligned} \text{c) } -5(r+4) &= -15 \\ -5r-20 &= -15 \\ -5r-20+20 &= -15+20 \\ -5r &= 5 \\ \frac{-5r}{-5} &= \frac{5}{-5} \\ r &= -1 \end{aligned}$$

$$\begin{aligned} \text{d) } 6(-s-3) &= 24 \\ -6s-18 &= 24 \\ -6s-18+18 &= 24+18 \\ -6s &= 42 \\ \frac{-6s}{-6} &= \frac{42}{-6} \\ s &= -7 \end{aligned}$$

10.  $s =$  number of points

$$\begin{aligned}2(s + 6) &= 26 \\2s + 12 &= 26 \\2s + 12 - 12 &= 26 - 12 \\2s &= 14 \\\frac{2s}{2} &= \frac{14}{2} \\s &= 7\end{aligned}$$

He started with  
7 points.

LS	RS
$2(s+6)$	$26$
$2(7+6)$	
$2 \times 13$	
$26$	