Name: KEY Date: _____

BLM 10–11

Practice (6.4B)

NOT ENOUGH SPACE.
ANSWERS ON FOLLOWING PAGES.
(EXCEPT FOR Q #3)

1. ~~Model each equation with algebra tiles. Then~~, solve. Check your solutions.

a) $4(d - 3) = -8$

b) $-6 = -3(k - 4)$

c) $-5(p + 5) = -20$

d) $14 = 2(s + 5)$

2. Solve each equation. Verify your answers.

a) $42 = 7(y + 4)$

b) $-4(c - 10) = 40$

c) $-1(r + 8) = 0$

d) $-18 = 6(j - 5)$

3. Show whether $x = 4$ is the solution to each equation.

VERIFY.

a) $2(x + 7) = 22$

$2(4+7) = 22$
$2(11) = 22$ | $22 = 22$ ✓

b) $-15 = -3(x - 9)$

$-15 = -3(4 - 9)$
$-15 = -3(-5)$ | $-15 = 15$ ✗

c) $24 = 8(x - 1)$

$24 = 8(4 - 1)$
$24 = 8(3)$ | $24 = 24$ ✓

d) $-5(x + 2) = -30$

$-5(4 + 2) = -30$
$-5(6) = -30$ | $-30 = -30$ ✓

4. If you take the number of points the Panthers football team scored in their first game, add the 21 points they scored in their second game, and double the total, you will get 62 total points. How many points did they score in their first game?

5. During a school fundraiser, Room 19 raised triple the amount of money that Rooms 16 and 17 raised together. Room 19 brought in $1095. Room 16 brought in $165. What was the total amount of money raised by Room 17?

#1 a) $4(d-3) = -8$

$4d - 12 = -8$

$+12 \quad +12$

$\frac{4d}{4} = \frac{4}{4}$

$d = 1$

CHECK:

$4(d-3) = -8$

$4[(1)-3] = -8$

$4(-2) = -8$

$-8 = -8$ ✓

b) $-6 = -3(k-4)$

$-6 = -3k + 12$

$-12 \quad -12$

$\frac{-18}{-3} = \frac{-3k}{-3}$

$6 = k$

CHECK:

$-6 = -3(k-4)$

$-6 = -3[(6)-4]$

$-6 = -3(2)$

$-6 = -6$ ✓

c) $-5(p+5) = -20$

$-5p - 25 = -20$

$+25 \quad +25$

$\frac{-5p}{-5} = \frac{5}{-5}$

$p = -1$

CHECK:

$-5(p+5) = -20$

$-5[(-1)+5] = -20$

$-5(4) = -20$

$-20 = -20$ ✓

d) $14 = 2(s+5)$

$14 = 2s + 10$

$-10 \quad -10$

$\frac{4}{2} = \frac{2s}{2}$

$2 = s$

CHECK:

$14 = 2(s+5)$

$14 = 2[(2)+5]$

$14 = 2(7)$

$14 = 14$ ✓

#2 a) $42 = 7(y+4)$

$42 = 7y + 28$

$-28 \quad -28$

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

$\boxed{2 = y}$

VERIFY:

$42 = 7(y+4)$

$42 = 7[(2)+4]$

$42 = 7(6)$

$42 = 42$ ✓

b) $-4(c-10) = 40$

$-4c + 40 = 40$

$-40 \quad -40$

$\frac{-4c}{-4} = \frac{0}{-4}$

$\boxed{c = 0}$

VERIFY:

$-4(c-10) = 40$

$-4[(0)-10] = 40$

$-4(-10) = 40$

$40 = 40$ ✓

c) $-1(r+8) = 0$

$-r - 8 = 0$

$+8 \quad +8$

$\frac{-r}{-1} = \frac{8}{-1}$

$\boxed{r = -8}$

VERIFY:

$-1(r+8) = 0$

$-1[(-8)+8] = 0$

$-1[0] = 0$

$0 = 0$ ✓

d) $-18 = 6(j-5)$

$-18 = 6j - 30$

$+30 \quad +30$

$\frac{12}{6} = \frac{6j}{6}$

$\boxed{2 = j}$

VERIFY:

$-18 = 6(j-5)$

$-18 = 6[(2)-5]$

$-18 = 6(-3)$

$-18 = -18$ ✓

#4. LET f BE THE NUMBER OF POINTS SCORED BY THE PANTHERS IN THEIR FIRST GAME.

$\therefore 2(f+21) = 62$

$2f + 42 = 62$

$-42 \quad -42$

$\frac{2f}{2} = \frac{20}{2}$

$\boxed{f = 10}$

THIS IS THE HARD PART. THINK!

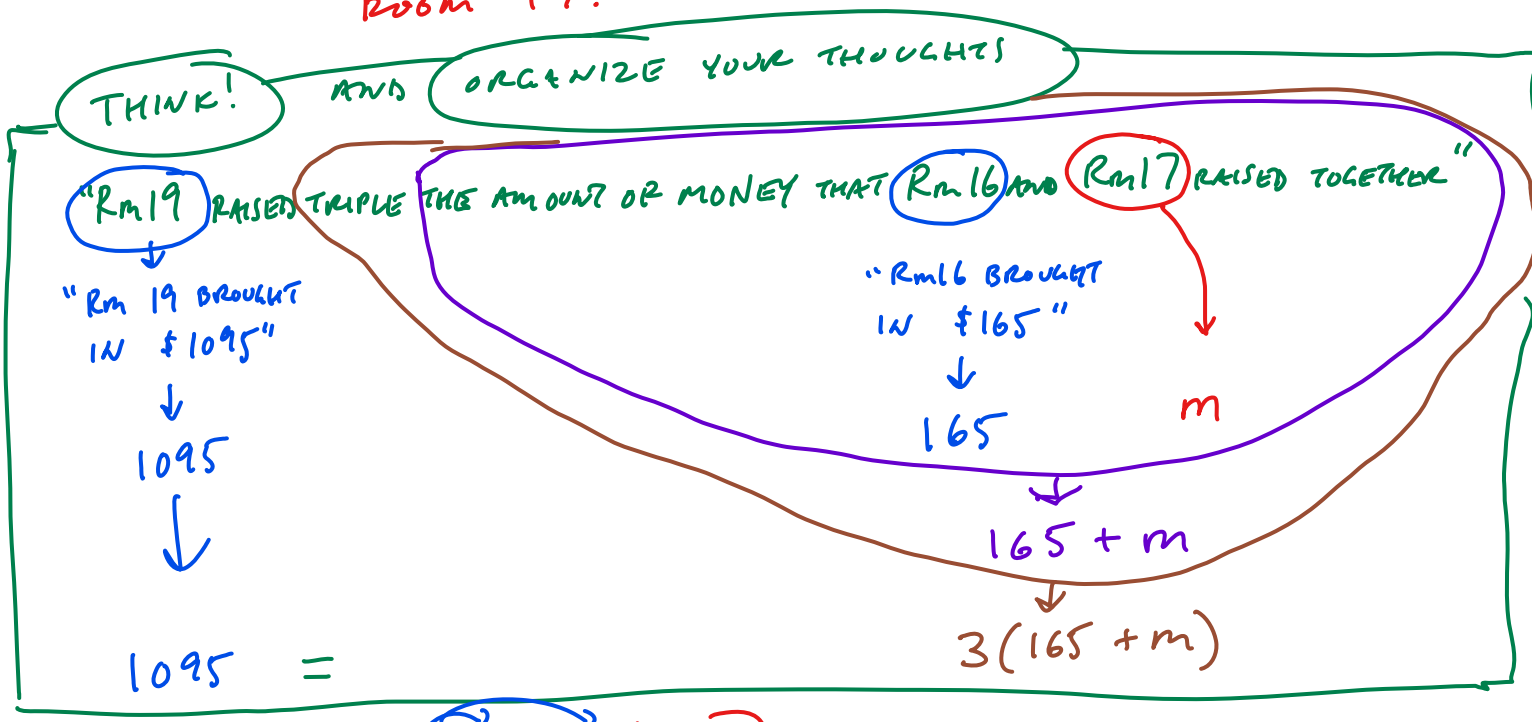
① TAKE PTS IN 1ST GAME: f

② ADD 21: $f+21$

③ DOUBLE: $2(f+21)$

THE PANTHERS SCORED 10 POINTS IN THEIR FIRST GAME.

#5. LET m BE THE TOTAL AMOUNT OF MONEY RAISED BY ROOM 17.



$\therefore \quad 1095 = 3(165+m)$

$1095 = 495 + 3m$

$-495 \quad -495$

$\frac{600}{3} = \frac{3m}{3}$

$200 = m$

ROOM 17 RAISED $200.

VERIFY:

$1095 = 3(165+m)$

$1095 = 3(165+200)$

$1095 = 3(365)$

$1095 = 1095$ ✓