Algebra 1 Practice Test 1   Name _____

1. Solve the following equations. Show each step. Properties are not necessary here.

a. 3x – 6 = 15
     +6   +6
  (1/3)3x   = 21(1/3)multiplying by the fraction one-third
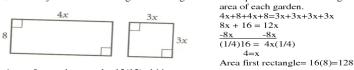   X=21/3
       =7

b. 4(2 + 3r) = 4
    8 + 12r = 4
 +-8   +-8
  (1/12) 12r = -4(1/12)
       R=-4/12
         =-1/3 OR-0.3333…

c. 7(2d – 3) = 6d +3
 14d-21=6d+3
-6d   -6d

d. 5(x-7) – 2(2 - 2x) = -3
 8d-21=3
 +21 +21
(1/8)8d = 24(1/8)=24/8=3

    5x-35-4+4x=-3
    9x-39=-3
    +39 +39
    9x = 36   x=4

e. $\dfrac{1}{4}a + 2 = a - 16$

  -1/4a   -1/4a
      2=3/4a-16
       +16   +16
    (4/3) 18=3/4a(4/3)   a=24

f. $\dfrac{3}{5}(-a + 3) = 3a - 9$

-3/5a +9/5=3a-9 out of room——see me in am

2. Justify each step with a property of equality or a real number property

a.   6 + 2(5 - 3a) = 2a(2 + 8)
    6 +10 – 6a   = 4a + 16a   distributive
    16 – 6a   = 20a   addtion
    16 – 6a + 6a = 20a + 6a   additive inverse
    16 + 0   = 26a   prop. Of zero
    16/26   = 26a/26   division
    8/13   = a   reduce

3. Mrs. Tyler has two rectangular flower gardens. If the perimeters of the two gardens are equal, find the value of x. Also find the area of each garden.

4x+8+4x+8=3x+3x+3x+3x
8x + 16 = 12x
-8x   -8x
(1/4)16 = 4x(1/4)
     4=x
Area first rectangle= 16(8)=128

Area of second rectangle=12(12)=144

4. Solve each equation for the indicated variable.

a. $\dfrac{1}{2}g + \dfrac{3}{4}h = m, \_ for \_ h$

b. x = ba + ca, for a   see me for solution

-1/2g   -1/2g
 3/4h= m-1/2g
Then Mult. By the recip of ¾ and get h=4/3(m-1/2g)

5. Write and solve an equation. Check your answer.

a. The number of trees planted by the Alpine Nursery in April was 3 more than twice the number of trees planted by the nursery in March. If 71 trees were planted in April, write and solve an equation to find how many trees were planted in March.
A=2m+3 A=71 then   71=2m+3
                 -3   -3
  _____ (1/2)68= 2m(1/2)   m=34