Name:_____ Date:_____

Pre-Calculus 11 Lesson 2 HW Solving Quadratic Equations by Factoring

1. Given each pair of binomials, solve for "x":

a. $(x+9)(x+21)=0$ b. $4(x-3)(x+3)=0$ c. $(x+81)(x-29)=0$

e. $(2x-5)\left(x-\frac{1}{2}\right)=0$ f. $x(3x+1)=0$ g. $2(5-2x)\left(\frac{1}{3}-x\right)=0$

2. Factor each of the following expressions and solve for "x". Show all your steps and work:

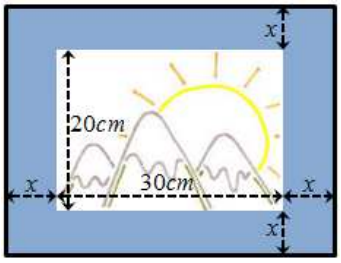
a. $x^2+8x+12=0$ b. $x^2+17x+72=0$ c. $x^2+2x-15=0$ d. $x^2-7x-170=0$

e. $x^2-64=0$ f. $100-x^2=0$ g. $(2x-1)^2-16=0$ h. $2x^2-11x+15=0$

i) $13x^2+8x-5=0$ j) $2x^2-25x-13=0$ k) $2x^2-7x+6=0$ L) $10x^2+49x+49=0$

m) $(x+2)^2+8(x+2)-20=0$	n) $(x-3)^2+10(x-3)+9=0$	o) $2(x+1)^2-(x+1)-6=0$
p) $4(x+2)^2=6-5(x+2)$	o) $x^4-256=0$	q) $x^4=10-9x^2$
r) $r^4-17r^2+16=0$	s) $x^4-29x^2+100=0$	t) $4(x^2-6x+9)^2-12(x^2-6x+9)=-9$

3. A photograph that is 20cm by 30cm is framed with a uniform mat board as shown below. If the area of the photo with the mat is 999cm^2, then what is the width of the mat?



4. Find the length of the base for the following triangle: