Nom : _____ MATH 8

Mock Exam	Algebra

Le Châtelard

Exercise 1 (10 points) Link the expressions which are equal:

a)	$3(y+2+2y)$	y
b)	$y+2y-3y+4y-5y$	$2y-1$
c)	$5y-4y$	$9y+6$
d)	$1.5y-2+0.5y+1$	$3y+8$
e)	$7(y-1)-7y$	-7
f)	$-y+4(y+2)$	$6y$
g)	$3(y-1)+3(y+1)$	0
h)	$7+y-7-y$	$-2y$
i)	$3y-5y$	$-y$
j)	$5-y+4$	$9-y$

Exercise 2 (6 points) Calculate and provide the simplest result:

a) $(-2x)\cdot(4+x)$ =

b) $2a-7-4$ =

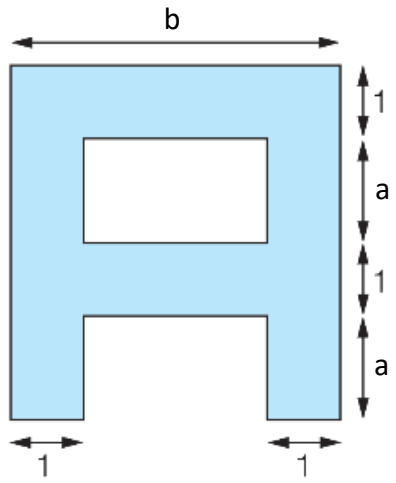
c) $10(4y+9)-6y$ =

d) $5(x+2)-3x$ =

e) $(2x+1)(x-1)$ =

f) $3y+2(5-y)+4$ =

Exercise 3 (4 points) Calculate the area and the perimeter of the figure bellow:



area :

perimeter :

Exercise 4 (10 points + 1 bonus) Transform the following expressions using the remarkable identities:

$$(a+b)^2 = a^2+2ab+b^2$$

$$(a-b)^2 = a^2-2ab+b^2$$

$$(a+b)(a-b) = a^2-b^2$$

a) $(x+5)^2$ =

b) $(x-3)^2$ =

c) $(x+4)(x-4)$ =

d) $(x-6)(x+6)$ =

e) $(-4-y)^2$ =

f) $(2a+3)^2$ =

g) $(3x-2)(3x+2)$ =

h) $(-x+2y)^2$ =

i) $(-2x-3y)^2$ =

j) $(2x+3y)(3y-2x)$ =

k) $\left(x+\frac{1}{3}\right)^2$ =