Name:_____   Date:

PC 11 HW Ch2.5B Solving for Quadratic Functions in Factored Form

1. Find the equation for each quadratic function in factored form given the x-intercepts and y-intercept. Show all your work and steps:

a) X-intercepts (3,0) and (-1,0) and Y-int (0,-6)	b) X -intercepts (4,0) & (-3,0) and Y-int (0,48)
c) X-intercepts (-5,0) and (-2,0) and Y-int (0,5)	e) X-intercepts (1.5,0) and (4,0) and Y-int (0,12)
f) X-intercepts (6,0) and (1.5,0) and Y-int (0,-18)	g) X-intercepts (0.75,0) and $\left(\frac{2}{3},0\right)$ and Y-int (0,-24)
h) X-intercepts (5,0) and (-7,0) and Y-int (0,13)	i) X-intercepts $\left(-\frac{2}{7},0\right)$ and $\left(\frac{5}{3},0\right)$ and Y-int (0,9)

2. Given the vertex and y-intercept, find the equation of the parabola in APQ form. Show all your work algebraically:

a) Vertex (3,-2) and y-intercept (0,34)	b) Vertex (2,-5) and y-intercept (0,23)

c) Vertex (-4,6) and y-intercept (0,-2)	e) Vertex (1,9) and y-intercept (0,6)
f) Vertex (5,11) and Y-intercept (0,-13)	g) Vertex (15,22) and Y-intercept (0,13)

3. Match each quadratic equation on the left with the corresponding quadratic equation on the right.

Quadratic Eq. Factored form	Answer	Choices in APQ Form:
i) $y = 2(x-2)(x+4)$		a) $y = 2(x+1.5)^2 - 40.5$
ii) $y = (2x+3)(x+4)$		b) $y = 4(x+1.25)^2 - 12.25$
iii) $y = 2(x+3)(2x-1)$		c) $y = 2(x+4.5)^2 - 0.5$
iv) $y = 2(x-3)(x+6)$		d) $y = 2(x+1)^2 - 18$
v) $y = 2(x+4)(x+5)$		e) $y = 2(x-4)^2 - 8$
vi) $y = 2(x-2)(x-6)$		f) $y = 2(x+2.75)^2 - 3.125$