Review #1 CP Algebra 2

Use elimination to solve each system.

1. $2x+y-z=5$
   $x+4y+2z=16$
   $15x+6y-2z=12$

$16x+10y=28$

$48x+30y=84$
$-25x-30y=-130$

$23x=-46$

$x=-2$

2. $x-2y+z=-4$
   $-4x+y-2z=1$
   $2x+2y-z=10$

$3x=6$

$x=2$

$2-2(1)+z=-4$

$z=-4$

$4x+2y-2z=10$
$x+4y+2z=16$

$5x+6y=26$

$5(-2)+6y=26$

$-10+6y=26$

$6y=36$

$y=6$

$2(-2)+6-z=5$

$-4+6-z=5$

$2-z=5$

$-z=3$

$z=-3$

$(-2, 6, -3)$

$2-2y+z=-4 \Rightarrow -2y+z=-6$

$-4(-2)+y-2z=1 \Rightarrow y-2z=9$

$-4y+2z=-12$

$-3y=-3$

$y=1$

$(2, 1, -4)$

Find a quadratic model for the set of values.

3. (-1, 6) (1, 4) (2, 9)

$6=a-b+c$

$4=a+b+c$

$9=4a+2b+c$

$-8=-2a-2b-2c$

$1=2a-c$

$10=2a+2c$

$-1=-2a+c$

$9=3c$

$3=c$

$1=2a-3$

$4=2a$

$2=a$

$6=2-b+3$

$6=5-b$

$1=-b$

$-1=b$

$y=2x^2-x+3$