#13 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_

Describe the transformation, then graph the following quadratics.

|  |  |  |
| --- | --- | --- |
| $$d\left(x\right)=(x-4)^{2}$$http://media.showmeapp.com/files/49247/pictures/thumbs/250008/last_thumb1341806160.jpg |  g(x)=$(x+3)^{2}$+2http://media.showmeapp.com/files/49247/pictures/thumbs/250008/last_thumb1341806160.jpg | http://media.showmeapp.com/files/49247/pictures/thumbs/250008/last_thumb1341806160.jpg h(x)=$(x+1)^{2}-3$ |
|  f(x)=$2x^{2}$http://media.showmeapp.com/files/49247/pictures/thumbs/250008/last_thumb1341806160.jpg | http://media.showmeapp.com/files/49247/pictures/thumbs/250008/last_thumb1341806160.jpg c(x)=$\frac{1}{2}x^{2}$ | http://media.showmeapp.com/files/49247/pictures/thumbs/250008/last_thumb1341806160.jpg d(x)=$-\left(x-3\right)^{2}+1$ |
| Write the equation of the quadratic if the parent function is vertically stretched by a factor of 2 and translated 3 units to the right. |
| Write the equation of the quadratic if the parent function is reflected across the x-axis and translated six units down. |

 Describe each transformation of the quadratic parent function.

|  |  |
| --- | --- |
| f(x)=$-(x-4)^{2}$ | f(x)=$8(x+2)^{2}$ |
| f(x)=$4x^{2}$ | f(x)=$(x-4)^{2}+3$ |