$\qquad$
$\qquad$

1. Solve the system by graphing. Use the boxes to help you.

$$
\begin{aligned}
& y=3 x^{2}-12 x+8 \\
& y=3 x-4
\end{aligned}
$$

$y=3 x-4$
Graph this first.


| $y=3 x^{2}-12 x+8$ |
| :--- |
| Find vertex: |
|  |



Answer(s):

For \#2 and 3,
a. Circle if each sequence is arithmetic, geometric, quadratic, or none of these.
b. Write a formula for the sequence if it is arithmetic or geometric.
c. Find the next three terms in each sequence.
2. $10,14,22,34$...
Circle One:
A
G
Q None
Formula (if A or G):
Next 3 terms: $\qquad$
$\qquad$
$\qquad$
3. $32,16,8,4 \ldots$
Circle One:
A
G
Q None
Formula (if A or G):
Next 3 terms: $\qquad$
$\qquad$ ,
4. Mrs. Pitcher LOVES a good taco. She and Mr. Sacco decide to go to a new restaurant that supposedly serves the best tacos in the area. She orders 5 tacos and 2 churros. Mr. Sacco, who has a sweet tooth, decides he will order only 2 tacos, but wants 7 churros! If Mrs. Pitcher's bill is $\$ 12.80$ (before tax and tip) and Mr. Sacco's is $\$ 12.25$, determine the following:
a. What equations would represent the situation?
b. What is the cost of a taco?
c. What is the cost of a churro?
5. Find the $x$-intercepts by Factoring $y=x^{2}-12 x+27$
6. Check your answer to \#5 using Complete the Square $y=x^{2}-12 x+27$

