$\qquad$ First Name $\qquad$
01 Factor the following polynomial / if not possible state n/a

| $y^{2}+10 y+16$ | $t^{3}-8$ | $x^{3}-4 x$ | $\mathrm{X}^{\wedge} 2+10$ |
| :--- | :--- | :--- | :--- |
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|  |  |  |  |

02 Find the restricted value of $x$ for the rational expression [meaning what value will make it zero in the denominator for $x]$. If there are no restricted value of $x$, then state no restrictions and give those value of $x$.

| $\frac{x^{2}+x+15}{x^{3}-4 x}$ |  | $\frac{2 x-5}{x^{2}-81}$ |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

3
Consider the following equation. $x+4 y=5$
(a) Rewrite the equation in slope-intercept form.
(b) Given $x=-7$, find the value for $y$ and graph.
(c) Given $x=-3$, find the value for $y$ and use the points to complete the graph of the line.

4
Write the slope-intercept form of the equation for the line that passes through the points $(-6,3)$ and $(1,4)$.

5
Consider the following equation of a line. Reduce all fractions to lowest terms. $8 x+4 y=15$
(a) Rewrite this equation in slope-intercept form.
(b) Find the equation, in slope-intercept form, for the line which is parallel to this line and passes through the point $(-7,8)$.

