## Quiz 3

Show all your work. No credit is given without reasonable supporting work. There are two sides to this quiz.

1. [1] (Polynomial Wks \#1) Explain what the degree of a polynomial is in your own words. Hint: make sure you use words!
2. The graph of $f$ has integer $x$ and $y$ intercepts and is shown below.

(a) $[2](\S 2.3 \# 39)$ Find the equation of the lowest degree for $f$.
(b) [2] (Polynomial Wks \#11) Given that $m(x)=f(x+1)$, graph $m$.
3. [3] ( $\S 3.2 \# 47)$ Solve for $x$ by writing exponential equation into logarithmic one.

$$
\log _{16} \sqrt{x-1}=\frac{1}{4}
$$

4. [2] (Lecture)

Draw the graphs of $\alpha(x)=\log _{2}(x)$ and $\beta(x)=2^{x}$ on the axes provided. Label each.

|  |  |  |  | $y_{1}^{5}$ |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- |

