$\qquad$

1. Sketch the graph of the parent function $f(x)=\sqrt{x}$. Identify the transformations of the function: $g(x)=\sqrt{x-3}+1$
2. Identify the inverse function of the equation $f(x)=2 x+5$
3. Identify the $y$-intercept of the exponential function: $f(x)=4^{x}+6$. Write the $y$-intercept as an ordered pair.
4. Simplify: $\left(\frac{121 x^{-8}}{16 y^{2}}\right)^{\frac{1}{2}}$
5. Solve the equation for $m: \quad y=m x+b$
6. If the function $f(x)=2^{x-3}+7$ is translated five units to the left and three units down. What would the equation of the resulting function be?
7. Simplify: $-9(2 x-5 y)+3(4 x+6 y)$
8. 

$\left(-2 x^{2}+6 x+1\right)-2\left(4 x^{2}-3 x+1\right)=$
A $6 x^{2}-1$
B $\quad-10 x^{2}-1$
C $6 x^{2}+12 x-1$
D $-10 x^{2}+12 x-1$
9.

Multiple Choice Which of the following relations is not a function?
(A)

| $\boldsymbol{x}$ | 2 | 4 | 6 |
| :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 1 | 3 | 5 |

(B)

| $\boldsymbol{x}$ | 0 | 1 | 2 |
| :--- | :--- | :--- | :--- |
| $\boldsymbol{y}$ | 0 | 1 | 2 |

(C)

| $\boldsymbol{x}$ | 4 | 6 | 8 |
| :--- | :--- | :--- | :--- |
| $\boldsymbol{y}$ | 8 | 6 | 4 |

(D)

| $x$ | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- |
| $y$ | 2 | 3 | 3 |

(E)

| $x$ | 3 | 3 | 6 |
| :--- | :--- | :--- | :--- |
| $y$ | 1 | 4 | 7 |

10. 

Multiple Choice If $g(x)=x^{2}+3 x-5$, what is $g(-2)$ ?
(A) -7
(B) 5
(C) -1
(D) -3
(E) -15

