$\qquad$ Date $\qquad$ Pd $\qquad$

### 5.6 Inverse Functions DAY TWO CYU

## $\square$ Use when you get it right all by yourself

Use when you did it all by yourself, but made a silly mistake
H Use when you could do it alone with a little help from teacher or peer
$\boldsymbol{G}$ Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
$N$ Use when a question was not even attempted

| CONCEPTS | BASIC | INTERMEDIATE | ADVANCED |
| :--- | :---: | :---: | :---: |
| Determining if functions are inverses |  | $1-6$ |  |
| Find the inverse of the function | 7,10 | 8,11 | 9,12 |
| Graphing functions \& inverses | 10 | 11 | 12 |
| Modeling with mathematics |  | 13 |  |

State if the given functions are inverses.

1. $g(x)=4-\frac{3}{2} x$
2. $\begin{aligned} f(n) & =\frac{-16+n}{4} \\ g(n) & =4 n+16\end{aligned}$
3. $g(n)=\frac{-12-2 n}{3}$
$f(n)=\frac{-5+6 n}{5}$
4. $f(n)=2(n-2)^{3}$
$g(n)=\frac{4+\sqrt[3]{4 n}}{2}$
5. $f(n)=-(n+1)^{3}$
$g(n)=3+n^{3}$
6. 

$$
\begin{aligned}
& g(x)=-\frac{2}{x}-1 \\
& f(x)=-\frac{2}{x+1}
\end{aligned}
$$

Find the inverse of each function.
7. $g(x)=\frac{1}{x}-2$
8. $g(x)=\frac{7 x+18}{2}$
9. $h(x)=2 x^{3}+3$

Find the inverse of each function. Then graph the functions and its inverse. Label both.
$f(x)=-1-\frac{1}{5} x$
10.

$$
g(x)=\frac{-x-5}{3}
$$

11. 
12. 

$$
f(x)=-2 x^{3}+1
$$




13. MODELING WITH MATHEMATICS Elastic bands can be used for exercising to provide a range of resistance. The resistance $R$ (in pounds) of a band can be modeled by $R=\frac{3}{8} L-5$, where L is the total length (in inches) of the stretched band. Find the inverse function. What length of the stretched band provides 19 pounds of resistance?

CYU Reflection: How far can you go: basic, intermediate, or advanced?

## Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.


