Math 3H Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Per:\_\_\_

9.2 Inverse Functions

Find the inverse of each function.

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| 1. $f\left(x\right)=-6x+8$
 | 1. $f\left(x\right)=-\frac{1}{2}x-2$
 | 1. $f\left(x\right)=3x-5$
 |
| 1. $f\left(x\right)=\sqrt{x+4}$
 | 1. $f\left(x\right)=\sqrt{2x-5}+4$
 | 1. $f\left(x\right)=-2\sqrt{3-x}$
 |
| 1. $f\left(x\right)=\frac{7x-6}{3x+2}$
 | 1. $f\left(x\right)=\frac{4x-3}{x+4}$
 | 1. $f\left(x\right)=\frac{1}{2}x^{3}-3$
 |
| 1. $f\left(x\right)=-2\sqrt[3]{x-5}+7$
 | 1. $f\left(x\right)=\frac{1}{2}\sqrt[3]{4-x}+1$
 | 1. $f\left(x\right)=\sqrt[3]{x-1}-4$
 |

Verify that $f$and $g$ are inverses of each other.

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| 1. $f\left(x\right)=\frac{x+3}{4} and g\left(x\right)=4x-3$
 | 1. $f\left(x\right)=x^{3}+1 and g\left(x\right)=\sqrt[3]{x-1}$
 |
| 1. $f\left(x\right)=\frac{1}{2}x-4 and g\left(x\right)=2x+8$
 | 1. $f\left(x\right)=\left(x-3\right)^{3}-2 and g\left(x\right)=\sqrt[3]{x+2}+3$
 |

Use the table to write the inverse function.

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Draw the graph of the inverse function.

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