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

9.3 Solve for a Specific Variable

For each function, find a suitable domain to make the function an invertible function.

|  |  |  |
| --- | --- | --- |
| 1. $f\left(x\right)=2x^{2}-3$
 | 1. $f\left(x\right)=-\left(x+2\right)^{2}$
 | 1. $f\left(x\right)=\left(x+5\right)^{2}+4$
 |
| 1. $f\left(x\right)=x^{2}+2x-3$
 | 1. $f\left(x\right)=x^{2}+12x+32$
 | 1. $f\left(x\right)=2x^{2}-12x+15$
 |
| 1. $f\left(x\right)=\left|x-3\right|+4$
 | 1. $f\left(x\right)=-2\left|x\right|+6$
 | 1. $f\left(x\right)=\left|2-x\right|-5$
 |

Solve each equation for the specified variable.

|  |  |
| --- | --- |
| 1. $\frac{q}{m}=\frac{2V}{B^{2}r^{2}} solve for B.$
 | 1. $\frac{l}{T^{2}}=\frac{g}{4π^{2}} solve for T.$
 |
| 1. $x=\frac{-b+\sqrt{b^{2}-4ac}}{2a} solve for c.$
 | 1. $\frac{r\_{1}}{r\_{2}}=\sqrt{\frac{M\_{2}}{M\_{1}}} solve for M\_{1}.$
 |
| 1. $\frac{x^{2}}{a^{2}}+\frac{y^{2}}{b^{2}}=1 solve for y.$
 | 1. $T=\frac{24\left(R-r\right)}{L} solve for R.$
 |
| 1. $\sqrt{b^{2}-4ac}=k solve for b.$
 | 1. $4p\left(y-k\right)=\left(x-h\right)^{2} solve for x.$
 |
| 1. $S=\frac{n}{2}\left(a\_{1}+a\_{n}\right) solve for a\_{n}.$
 | 1. $a\_{n}=a\_{1}+\left(n-1\right)d solve for n.$
 |
| 1. $V=\frac{4}{3}πr^{3} solve for r.$
 | 1. $y=\sqrt{a^{2}-\frac{a^{2}x^{2}}{b^{2}}} solve for b.$
 |