### Lesson 5 Practice Problems

* 1. Consider the inequality $-1\leq \frac{x}{2}$.
		1. Predict which values of $x$ will make the inequality true.
		2. Complete the table to check your prediction.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| * + - $x$
 | * + - -4
 | * + - -3
 | * + - -2
 | * + - -1
 | * + - 0
 | * + - 1
 | * + - 2
 | * + - 3
 | * + - 4
 |
| * + - $\frac{x}{2}$
 |  |  |  |  |  |  |  |  |  |

* 1. Consider the inequality $1\leq \frac{-x}{2}$.
		1. Predict which values of $x$ will make it true.
		2. Complete the table to check your prediction.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| * + - $x$
 | * + - -4
 | * + - -3
 | * + - -2
 | * + - -1
 | * + - 0
 | * + - 1
 | * + - 2
 | * + - 3
 | * + - 4
 |
| * + - $-\frac{x}{2}$
 |  |  |  |  |  |  |  |  |  |

1. Diego is solving the inequality $100−3x\geq -50$. He solves the equation $100−3x=-50$ and gets $x=50$. What is the solution to the inequality?
	1. $x<50$
	2. $x\leq 50$
	3. $x>50$
	4. $x\geq 50$
2. Solve the inequality $-5\left(x−1\right)>-40$, and graph the solution on a number line.
3. Select **all** values of $x$ that make the inequality $-x+6\geq 10$ true.
	1. -3.9
	2. 4
	3. -4.01
	4. -4
	5. 4.01
	6. 3.9
	7. 0
	8. -7
* (From Unit 4, Lesson 3.)
1. Draw the solution set for each of the following inequalities.
	1. $x>7$
	* 
	1. $x\geq -4.2$
	* 
* (From Unit 4, Lesson 3.)



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