**Name:**

**Date:**

**School:**

**Facilitator:**

**2.04 Solving Inequalities**

**Total Points: 43**

This task requires you to create a graph. You have several options:

* Draw the graph by hand, then photograph or scan your graph;
* Use the Microsoft Word chart tools to graph your data; or
* Use the GeoGebra linked on the Task page of the lesson to create the graph; then, insert a screenshot of the graph into this task.

Match each inequality to the best verbal statement.

|  |  |  |
| --- | --- | --- |
|  | 1. *m* < 5 | 1. all real numbers less than or equal to 5 |
|  | 1. *m* > 5 | 1. all real numbers greater than or equal to 5 |
|  | 1. *m* > 5 | 1. all real numbers less than 5 |
|  | 1. 5 > *m* | 1. all real numbers greater than 5 |

Match each inequality to the correct graph.

|  |  |  |
| --- | --- | --- |
|  | 1. *m* < 5 |  |
|  | 1. *m* > 5 |  |
|  | 1. *m* > 5 |  |
|  | 1. 5 > *m* |  |

Solve and graph each inequality. Show **ALL** solution steps.

9.

|  |  |  |  |  |  |  |  |  |  |
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| *m* – 8 < 12 |  | |  | | | | | | |
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10.

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| 3*m* < –18 |  | |  | | | | | | |
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11.

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12.

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13.

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14.

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| –9 – 3*x*> –72 |  | |  | | | | | | |
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15.

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| 2*x* – 36 > –100 |  | |  | | | | | | |
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16.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 56 – 4*m* ≤ 2(2*m*+4) |  | |  | | | | | | |
|  |  |  | |  |  |  |  |  |  |

17.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8*m* + 90 < 3*m* – 60 |  | |  | | | | | | |
|  |  |  | |  |  |  |  |  |  |

18.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| –12 + 10*x* – 6 > 9*x* + 12 – 2*x* |  | | | | | |
|  |  |  |  |  |  |  |