Homework 1.6: Absolute Value Inequalities Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Math 3

**Solve and then graph the following inequalities:**

1.  2. 



3.  4. 





5.  6. 



7. Which of the following is the inequality of the graph below?

mc006-1.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| **a.** | **mc006-2.jpg** | **c.** | **mc006-4.jpg** |
| **b.** | **mc006-3.jpg** | **d.** | **mc006-5.jpg** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 8. Which of the following is the solution of ?   |  |  |  |  | | --- | --- | --- | --- | | **a.** | mc004-2.jpg | **c.** | mc004-4.jpg | | **b.** | mc004-3.jpg | **d.** | mc004-5.jpg | |

1. The weight of a 40 lb bag of fertilizer varies as much as 4 oz from the stated weight. Write an absolute value inequality and a compound inequality for the weight, *w*, of a bag of fertilizer.
2. Write an absolute value inequality and a compound inequality for the temperature, *t*, that was recorded to be as low as F and as high as F on a certain day.
3. The duration of a telephone call to a software company’s help desk is at least 2.5 minutes and at most 25 minutes. Write an absolute value inequality and a compound inequality for the duration, *d*, of a telephone call.
4. The circumference, *c*, of basketball for woman must be between 28.5 and 29 inches. Write an absolute value inequality and a compound inequality for the circumference.