

Inequalities



Guided Practice

Determine which number is a solution of the inequality. (Example 1)

1. $9 + a < 17$; 7, 8, 9

2. $b - 10 > 5$; 14, 15, 16

Show your work.


Is the given value a solution of the inequality? (Examples 2–4)

3. $x - 5 < 5$, $x = 15$

4. $32 \geq 8n$, $n = 3$

5. If the bakery sells more than 45 bagels in a day, they make a profit. Use the inequality $b > 45$ to determine which days the bakery makes a profit. (Example 5)

Day	Number of Bagels Sold
Monday	18
Tuesday	25
Wednesday	21
Thursday	36
Friday	50
Saturday	48
Sunday	40



Independent Practice

Determine which number is a solution of the inequality. (Example 1)

1. $1 + f < 7$; 5, 6, 7

2. $g - 3 > 4$; 6, 7, 8

Show your work.

Is the given value a solution of the inequality? (Examples 2–4)

3. $q - 2 > 16$, $q = 20$

4. $t - 7 < 10$, $t = 28$

5. The table shows the number of different types of roller coasters in the United States. An amusement park wants to build a new roller coaster. They will only build a roller coaster if there are less than 10 of that type in the United States. Use the inequality $r < 10$, where r is the number of a certain type of roller coaster, to determine which type(s) can be built. (Example 5)

Type	Number
Sit down (steel)	460
Sit down (wood)	111
Inverted	42
Flying	9
Stand up	7
Suspended	5

6. The table shows the number of different types of movies in Lavar's collection. He wants to buy a new movie to add to his collection. He only wants to buy a movie if he already has more than 15 movies of that type. Use the inequality $m > 15$, where m is the number of the type of movie, to determine which type(s) he can buy. (Example 5)

Movie Type	Number
Action	18
Comedy	24
Drama	12
Thriller	15

7. The number of text messages Lelah sent each month is shown in the table. She can send no more than 55 messages each month without being charged. Use the inequality $t \leq 55$, where t is the number of text messages in a month, to determine in which months she exceeded her limit. If each additional text costs \$0.25, how much was Lelah charged from January to April?

Month	Text Messages
Jan.	56
Feb.	57
Mar.	55
Apr.	51

18. Mrs. Crane recorded the number of sandwiches sold in her deli on one day. If she sells more than 25 of a type of sandwich, she orders more meat from the butcher. Use the inequality $s > 25$, where s is the number of sandwiches sold, to determine which meats she needs to order.

Sandwich	Number Sold
Club	25
Ham	30
Roast beef	22
Turkey	28

19. The height of each member of a family is listed in the table. In order to ride a certain roller coaster at an amusement park, you must be at least 54 inches tall. Use the inequality $h \geq 54$, where h is a family member's height, to determine who can ride the roller coaster.

Name	Height (in.)
Carmen	66
Eliot	54
Isabella	49
Jackson	52
Ryan	71

20. **CCSS Be Precise** Pedro subscribes to a service where he can download up to five free ringtones each month. Each ringtone after that costs \$3.50 each. During which months did Pedro exceed the plan? How much is Pedro's additional cost in 6 months?

Month	Ringtones
January	5
February	6
March	4
April	8
May	5
June	4