

## Writing a multi-step inequality for a real-world situation

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Chang and Mai each ran every day as part of an exercise routine. Chang ran 3 miles each day for  $x$  days. Mai ran 4 miles each day for  $y$  days. The total number of miles that Chang ran is at least the total number of miles that Mai ran. Write an inequality describing this relationship.

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| $\square = \square$    | $\square < \square$    | $\square > \square$    |
| $\square \neq \square$ | $\square \leq \square$ | $\square \geq \square$ |
| <input type="text"/>   |                        |                        |
| $\times$               | $\div$                 |                        |

Chang  $3x$   
 Mai  $4y$

$$3x \geq 4y$$

at least =  $\geq$

### Writing a multi-step inequality for a real-world situation

Karen and Rafael each ran every day as part of an exercise routine. Karen ran 3 miles each day for  $x$  days. Rafael ran 6 miles each day for  $y$  days. The total number of miles that Karen ran is greater than the total number of miles that Rafael ran. Write an inequality describing this relationship.

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| $\square = \square$    | $\square < \square$    | $\square > \square$    |
| $\square \neq \square$ | $\square \leq \square$ | $\square \geq \square$ |
| <input type="text"/>   |                        |                        |
| $\times$               | $\div$                 |                        |

$$3x > 6y$$

### Writing a multi-step inequality for a real-world situation

Boris works as a busboy making \$7 per hour and as a theater usher making \$8 per hour. Let  $b$  be the number of hours he works as a busboy this month, and let  $u$  be the number of hours he works as an usher. His goal this month is to earn at least \$1000 total. Using the values and variables given, write an inequality describing this.

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| $\square = \square$    | $\square < \square$    | $\square > \square$    |
| $\square \neq \square$ | $\square \leq \square$ | $\square \geq \square$ |
| <input type="text"/>   |                        |                        |
| $\times$               | $\div$                 |                        |

$$7b + 8u \geq 1000$$

at least  $\geq$   
 at most  $\leq$