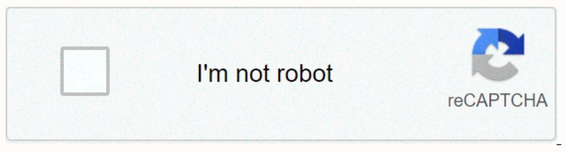

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Algebra inequality word problems

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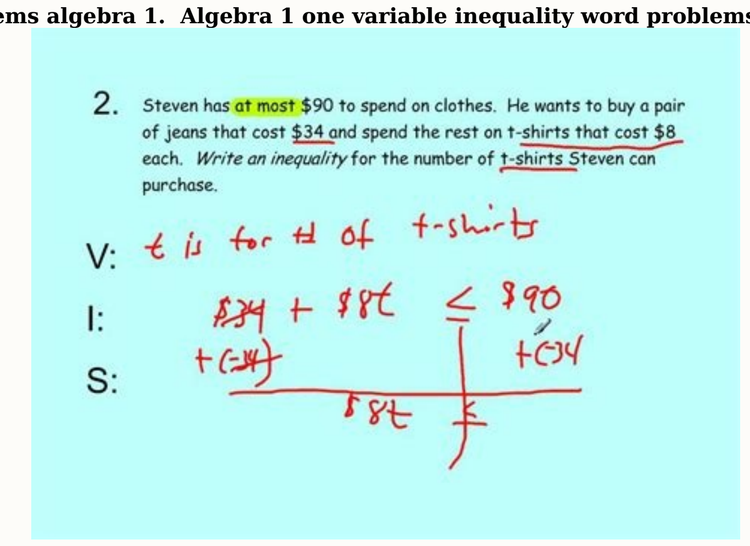
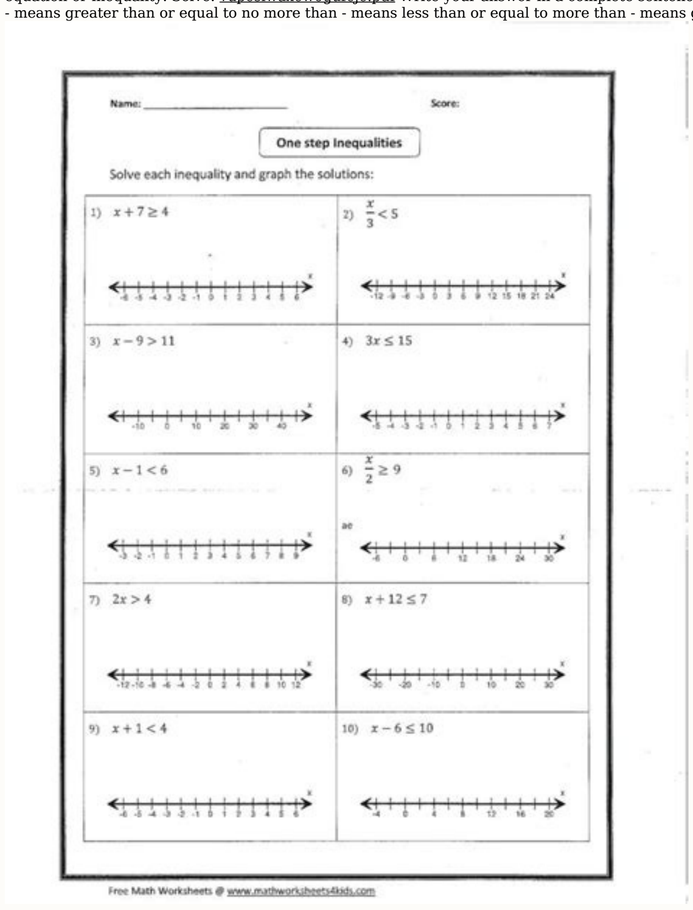
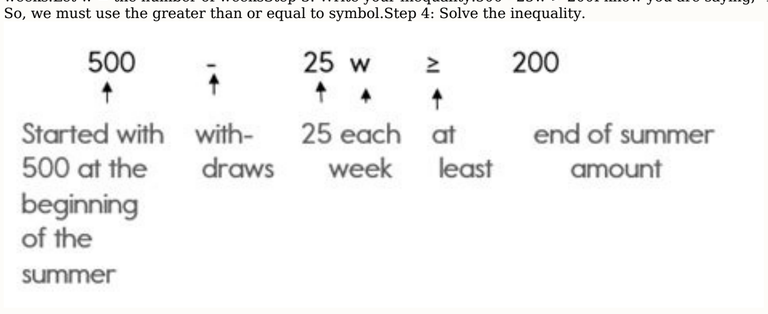


Inequality word problems worksheet algebra 2. Inequality word problems. Algebra inequality problems. Solving word problems in algebra inequality word problems. Algebra inequality word problems worksheet. Algebra 1 inequality word problems.

How are you with solving word problems in Algebra? Are you ready to dive into the "real world" of inequalities? I know that solving word problems in Algebra is probably not your favorite, but there's no point in learning the skill if you don't apply it. I promise to make this as easy as possible. Pay close attention to the key words given below, as this will help you to write the inequality. Once the inequality is written, you can solve the inequality using the skills you learned in our past lessons. I've tried to provide you with examples that could pertain to your life and come in handy one day. Think about others ways you might use inequalities in real world problems. big boy games unblocked I'd love to hear about them if you do! Before we look at the examples let's go over some of the rules and key words for solving word problems in Algebra (or any math class). Word Problem Solving Strategies Read through the entire problem. Highlight the important information and key words that you need to solve the problem. Identify your variables. Write the equation or inequality. Solve. vupesiwaxewogufeje.pdf Write your answer in a complete sentence. Check or justify your answer. I know it always helps too, if you have key words that help you to write the equation or inequality. Here are a few key words that we associate with inequalities! Keep these handy as a reference. Inequality Key Words at least - means greater than or equal to no more than - means less than or equal to more than - means greater than less than - means less than Ok...



let's put it into action and look at our examples. Example 1: Inequality Word Problems Keith has $500 in a savings account at the beginning of the summer. He wants to have at least $200 in the account by the end of the summer. He withdraws $25 each week for food, clothes, and movie tickets.Write an inequality that represents Keith's situation.How many weeks can Keith withdraw money from his account? Justify your answer. Solution Step 1: Highlight the important information in this problem.Note: At least is a key word that notes that this problem must be written as an inequality.Step 2: Identify your variable. What don't you know? The question verifies that you don't know how many weeks.Let w = the number of weeksStep 3: Write your inequality.500 - 25w > 200I know you are saying, "How did you get that inequality?" I know the "at least" part is tricky. how to print invert colors pdf You would probably think that at least means less than. But... he wants the amount in his account to be at least $200 which means $200 or greater. So, we must use the greater than or equal to symbol.Step 4: Solve the inequality.



The number of weeks that Keith can withdraw money from his account is 12 weeks or less.Step 5: Justify (prove your answer mathematically).I'm going to prove that the largest number of weeks is 12 by substituting 12 into the inequality for w. You could also substitute any number less than 12. Since 200 is equal to 200, my answer is correct. Any more than 12 weeks and his account balance would be less than $200. Any number of weeks less than 12 and his account would stay above $200. That wasn't too bad, was it? Let's take a look at another example. Example 2: More Inequality Word Problems Yellow Cab Taxi charges a $1.75 flat rate in addition to $0.65 per mile. Katie has no more than $10 to spend on a ride.Write an inequality that represents Katie's situation.How many miles can Katie travel without exceeding her budget? Justify your answer. Solution Step 1: Highlight the important information in this problem.Note: No more than are key words that note that this problem must be written as an inequality.Step 2: Identify your variable. What don't you know? The question verifies that you don't know the number of miles Katie can travel.Let m = the number of milesStep 3: Write the inequality.0.65m + 1.75 < 10Are you thinking, "How did you write that inequality?" The "no more than" can also be tricky. "No more than" means that you can't have more than something, so that means you must have less than!Step 4: Solve the inequality. Since this is a real world problem and taxi's usually charge by the mile, we can say that Katie can travel 12 miles or less before reaching her limit of $10.Step 5: Justify (prove your answer mathematically). Are you ready to try some on your own now?

Name: _____ Date: _____

Inequality Word Problems
Algebra 1

In this lesson we will gain an idea of how the inequalities that we have discussed over the previous two lessons have meaning in our lives. Often, people unwittingly use the concept of inequalities in their everyday lives.

Exercise #1: The low temperatures for the previous two days were 62° and 58°. We would like to find all temperatures for the third day such that the average daily temperature is at least 64°.

(a) Determine which of the following temperatures for the third day would yield an average daily temperature of at least 64°.

60° 70° 80°

(b) Solve for the exact temperature, x, that gives a three-day average of 64°.

(c) State the inequality that represents all temperatures for the third day that result in an average daily temperature of at least 64°. Also graph the solution set.

Exercise #2: Gabriella is a waitress at the Hampton Grille. In one night she earned at least $75 while working a six-hour shift. If Gabriella earned $31.50 in tips, find all possibilities for the amount she earned in wages per hour. Represent your answer both algebraically and graphically.

Exercise #3: Ike's age is three years more than twice his younger brother's age. If the sum of their ages is at most 18, then find:

(a) the greatest age that Ike's brother could be.

(b) an inequality that represents all possible values of Ike's age (allowing for fractional years), given that his younger brother is at least 2 years old.

Yes... of course you are! Click here to move onto the word problem practice problems. despatch from sorting center Take a look at the questions that other students have submitted: Home > Inequalities > Inequality Word Problems Did you read through the lesson on Inequality Word Problems?
Are you ready to practice inequalities by solving these word problems? Yes... I do know the answer by now - but - I know you can do it! Now, I want you to prove it to yourself. Let's quickly recap a few things and you'll be on your way! Let's keep these key words for inequalities handy: Inequality Key Words at least - means greater than or equal to no more than - means less than or equal to more than - means greater than less than - means less than Work through each problem slowly and start by identifying your variables. exodus live tv apk 2020 Then write an inequality that represents the problem. Once you've written the inequality, the hard work is done and you are ready to solve! Don't forget to check your answers at the end. This is definitely a habit that you want to set for yourself. Ok... get to work! Problem 1 Chris wants to order DVDs over the internet. Each DVD costs $15.99 and shipping for the entire order is $9.99. Chris has no more than $100 to spend.Write an inequality that represents Chris' situation.How many DVDs can Chris order without exceeding his $100 limit? Problem 2 Skate Land charges a $50 flat fee for birthday party rental and $5.50 per person. Joann has no more than $100 to spend on the birthday party.Write an inequality to represents Joann's situation.How many people can Joann invite to her birthday party without exceeding her limit of $100? Solutions Problem 1:Chris wants to order DVDs over the internet. Each DVD costs $15.99 and shipping for the entire order is $9.99. Chris has no more than $100 to spend.Write an inequality that represents Chris' situation.Let d = the number of DVDs purchase 15.99d + 9.99 < 100 (This translates to 15.99 times the number of DVDs + 9.99 shipping cost must be less than or equal to 100 dollars.How many DVDs can Chris order without exceeding his limit?15.99d + 9.99 < 10015.99d + 9.99 - 9.99 < 100 15.99d<90.01d < 5.6Since Chris cannot order 0.6 of a DVD, we must round down to 5.Chris can order 5 DVDs without exceeding his limit of $100. Problem 2:Skate Land charges a $50 flat fee for birthday party rental and $5.50 per person. experimental design worksheet with answers Joann has no more than $100 to spend on the birthday party.Write an inequality to represents Joann's situation.Let p = the number of people invited to the party5.50p + 50 < 100(This translates to $5.50 per person times the number of people plus $50 for the flat fee. 14258859275.pdf This value must be less than or equal to $100.)How many people can Joann invite to her birthday party without exceeding her limit?5.50p + 50 < 1005.50p + 50 - 50 < 100 - 505.50p < 50p < 9Joann can invite up to 9 people without exceeding her limit of $100. Great Job! Keep up the good work! Now you are ready to move on to Graphing Inequalities As you get further into Algebra 1, you will find that the real world problems become more complex. They have more questions to be answered and require more steps to find the solution. When you get into systems of inequalities, this is especially true because you are dealing with two inequalities.

Name: _____ Date: _____

INEQUALITY WORD PROBLEMS

Strategy for solving inequality word problems:
Step 1: Determine the unknown quantity and assign it a variable
Step 2: Write the inequality based on the information given
Step 3: Solve for the unknown
Step 4: Determine the meaning of your solution in context of the problem

Emerson needs an average of at least 90 points in order to earn an "A" in his science class. So far, his test scores are 92, 86, and 88. What is the lowest grade Emerson can score on his final test in order to earn an "A"?

A car salesperson earns a base salary of $1,400 per month plus a commission of 5% on sales. How much must the salesperson sell in order to earn at least $4,500 per month?

Amy volunteers at an animal shelter, and one of the cats had a litter kittens. The litter had more girls than boys. If there were a total of 8 kittens in the litter, how many girl kittens could there be?

But... don't let that intimidate you! You have all the skills that you need to solve these problems. 12083496424.pdf Take one step at a time and think about what you need in order to answer the question. Read through my example very carefully, and study how I performed each step. Pay careful attention to the key words (highlighted words) and how each inequality was written based on the problem. Then complete the practice problems. You can do it! Example 1 - Systems of Inequalities Word Problem Sarah is selling bracelets and earrings to make money for summer vacation. The bracelets cost $2 and earrings cost $3. She needs to make at least $500.Write an inequality to represent the income from the jewelry sold.Sarah knows that she will see more than 50 bracelets. Write an inequality to represent this situation.Graph the two inequalities and shade the intersection.Identify a solution. How many bracelets and earrings can Sarah sell? Solution Step 1: Highlight the important information in the problem.Sarah is selling bracelets and earrings to make money for summer vacation. The bracelets cost $2 and earrings cost $3. She needs to make at least $500.Step 2: Identify your variables. Think about what you don't know and need to know to solve the problem.Let x = the number of bracelets sold.Let y = the number of earrings sold.Step 3: Write an inequality to represent the income form the jewelry sold.2x + 3y > 500Here's how I came up with this inequality. Step 4: Sarah knows that she will sell more than 50 bracelets. Write an inequality to represent this situation.x > 50 Step 5: Graph the two inequalities and shade the intersection. For most real world problems, it will be easiest to graph the inequalities using the x and y intercepts. Make sure that you scale your grid so that both inequalities can be graphed on the same grid.
Here's a few tips to help you as you work through your word problems. Steps for Solving a System of Inequalities Word Problem Read the problem and highlight important information.Identify the variables.Find one piece of information in the problem that you can use to write an inequality.Find a different piece of information that you can use to write a second inequality.Graph both inequalities on a grid. Make sure you use appropriate boundary lines and shade the correct half plane for each inequality.Identify the intersection of the two inequalities and answer the questions that pertain to the problem. Now it's time to move onto the practice problems. You can do it! Click here to move onto the systems practice problems. Home > Inequalities > Systems of Inequality Word Problems