Positive and negative integer word problems worksheet

Let $x $ and $y $ be integers such that... If $y $ is a positive integer, what is...? If you've done an ACT test or a practical ACT test, these types of math questions may seem familiar to you. You will probably come across a few questions on the ACT that mention the word integer. And if you don't know what the term means, these problems will be hard to solve. Issues related to integers are common to ACT Math, so it's important to have a firm understanding of them as you prepare for the test. What are integrators and how do they fit into the bigger ACT Math picture? This article will be your guide to the main guides for the ACT, what they are, how they change, and how you will see them use on the test. For more advanced integrator concepts, including absolute values, exhibitors, roots, and more, check out our best guide to ACT integers. What is the Integrator? A whole censorship is a whole number or any number that is not expressed by a decimal point or a faction. Entire numbers include all positive whole numbers, all negative whole numbers, and zero. Here are some examples of integrators: -32; -2; 0; 17; 2,035 And here are a few examples of numbers that aren't integers: $π $2/3 .478 Think of an integer as an object that can't be divided into pieces. For example, you can't have half an egg in a basket. Positive and negative numbers integrators are used to demonstrate how numbers are linked to each other and to zero. All the numbers to the right of zero are positive numbers, and all numbers to the left of zero are negative numbers. The positive numbers are bigger the farther they are from scratch: Here we see that 154 is more than 12, because 154 are further down the line of numbers in a positive direction (right). In contrast, the negative numbers are smaller the farther they are from zero: As you can see here, -154 is less than -12 because -154 is further down the line of numbers in a negative direction (left). Another rule you should know is that a positive number will always be greater than a negative number. For example, 1 more ,10,109. Below is an example of an ACT Math question that tests your knowledge of integrators and number lines: Because we have no reference to 0, we can't say for sure whether the $A $ is positive or negative, which excludes the choice of answer F, G and K. What we know, however, is that any number to the left of the other number will be smaller, that is the correct answer should be choice H (A less than $B $). Very opposite to the numerical line. Typical Integer questions on the ACT Math Section Most ACT Math questions are a combination of word problem and equation problem. These questions tend to present you with an equation and then instruct you to use integers instead of variable. In order to solve these you need to know that the whole thing means a whole number (and that whole whole numbers and zero). Here's an example of a fairly simple integrative question that you can see on ACT Math: For 2 consecutive integrators, the result of adding a smaller integer and a triple big integer is 79. What are 2 integers? A. 18, 19B. 19, 20C. 20, 21D. 26, 27E. 39, 40 Sometimes, however, you will have to answer more abstract questions about how integers relate to each other when you add, subtract, multiply or divide them. You don't need to look for a numerical answer to these types of questions; rather, you have to determine whether certain equations will be even or odd, positive or negative. Here's an example: If $a $ is the odd integer and $b $ is an even integer, which of the following is the odd integer? A. $3b$B. $a'3$C. $2(a'b)$D. $a'2b$E. $2a'b$ For this question, you can guess and check how integrators change in relation to each other by connecting their own numbers and then deciding, or remembering the rules, how integers interact. How you approach these types of math questions is entirely up to you and depends on how you learn and/or like to solve math problems. For example, in the graphs below, you'll see this rule: $'Positive Umber - Positive Umber - Positive Umber If you forget this rule (or just don't want to know it in the first place), you can always try it yourself, just remembering that $2'3'6$. Since you can always figure out these results, Using our own numbers, we classify the following integrator rules as well known (but not necessary to know): Integring Rule (Multiplying Positive and Negative) Sample Positive - Positive - Positive $2'3'6$ Negative - Negative - Positive $-2'-3'6$ Positive - Negative - Negative $-2'3'-6$ Another Way to Think About These Rules, how it is: When the numbers are multiplied, the result is always positive if you do not multiply the positive number and the negative number. In addition to the positives and negatives, you should also know the rules for odd and even numbers: The Integring Rule (Odd and Even Numbers Multiply) Sample Odd Result always, even if you multiply the odd number and another strange number. Finally, here are the rules to know when adding and subtracting odd and even integers: Rule Integra (Adding/Subtraction of Odd and Even Numbers) Example Odd th/- Odd - Even $5 7 12 Th/- Even the $11 result is always even if you don't add or subtract the odd number and even number. With these insights in mind, let's take another look at the above ACT Math problem: If $a $ is the odd integer and $b $ is an even more integrator who of the following is the odd integer? A. $3b$B. $2 (a'b)$D. $a'2b$E. $2a'b$ Choice A is wrong because (1) $$b is an even integer, and (2) we know that an even number is an odd number - an even number (never a strange number). Choice B is wrong because (1) a is an odd integer, and (2) we know that the odd number - the odd number - is an even number. Choosing C is wrong because it's the odd integer and $4b $ is an even integer. The even number is the odd number - the odd number. And the odd number - an even number (in this case 2) is an even number. Choosing D is the right one. Two $b dollars will be even because the uniform number - the 4th - the 4th numbers. And the end result will be strange, because the odd number (a) - an even number ($2b$) - is an odd number. E choice is wrong. The two multiplied by the odd number (a) is an even number, because the even number - the odd number - is an even number. And even a number - if even a number, that is 4 numbers. So your final answer is D: $a $2b. You can also solve this problem by re-propping these rules by connecting your own numbers. If you've assigned an odd number to an even number b, you can check each option in about the same time as we are here. So for that question, you could $a $5 and $b $6$6. Option D would then look like this: $5'2(6) $17 Again, because you can figure out these kinds of issues using real numbers, these rules are classified as good to know and not necessary to know. If you follow the right steps, solving a more important problem is often much easier than it seems. How to solve the problem of ACT Math Integer: 3 main steps in this section, we will go through three steps to remember when it comes to solving any ACT Maths problem. Step 1: Confirm that the problem is a more integral problem If you have to use integrators to solve the problem, the ACT will explicitly use the word integer in question, so you don't waste your time and effort in search of decimal or factional solutions. For example, the questions might say something like this: If $x $ is a positive integer such that ... For all the negative integers ... How many integers give a solution. ... For any problem that does not indicate that variables (or solutions) are integers, your response or variables may be in decimal points or fractions. Let's take another look at the problem from earlier: For 2 consecutive integers, the resulting addition of a smaller integer and triple big integer is 79. What are 2 integers? A. 18, 19B. 19, 20C. 20, 21D. 26, 27E. 39, 40 Immediately, we can say that this problem is related to integrators based on how it is formulated and its direct use of terms integrator and integers. Our five answer options as well as all (positive) integers. To solve this problem, let's use basic algebra. We have two unknown integers who are said to be consistent (meaning that one integer integer 1 more than the others). Let's call a smaller integrator $a $ and more integrator $b $. To find the values of the two variables, we need to come up with a system of equations and solve each variable. We know that $a $ should be 1 less than $$b, which gives us this equation: $a'b-1$ We also said we added three times the $b $ gives us 79. As an equation, it looks like this: $a $3b'79 now, all, what we need to do is solve our equation system to find values of $'bi a$ and $'bi b$: $a'b-$$$1 (b-1) $1$79$4b-80 $$b $20 $20 If $b $20, then a19 (as it's 1 less than b). So, the correct answer is B. If you want, you could over-check your answer by plugging 19 and 20 in the second equation above to ensure the result goes to 79 (spoiler: it does!). Step 2: For equations that are always true, check out many different integrators If the ACT Math question asks you to determine whether certain equations or inequalities are true for all integers, the equation should work with 10 as well as with 0 and -5. A good rule of thumb is to try -1, 0, and 1 with variables like these. These numbers often have special properties that can make or break conditions. Let me explain what this means with the practice question: If $x $ is an integer, which of the following equations should be true? I. $x 3≥ (-x) 3$II. xx3/x≥ x2/x$III. $x (x-1)≤-x-x'x'x-3 A. I onlyB. II onlyC. III only D. Me and III onlyE. I, II and III For issues like this, we should check our sample numbers, as it can get confusing to use our integer behavior rules with complex problems such as these. So to choose myself, let's use our test numbers -1, 0 and 1. (-1) (-1) (-1) (-1)-$-$-$-$(--1) This automatically eliminates option I. And by excluding Option I, we can also exclude A, D and E answers. $-1'3'/-1'/1'-1)(-1)/-1'-1'/1'-1$1'-1$1';-1)/-1) /1/-1/-1-1-$1-1-$1,1-1$1.-1-1-1-$1 that Option II works so far when we use a negative number. So let's try it with our positive number (1): $1 3/1 (1) (1)/1 11/1 $1 2/1 (1)/1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 option II still works. Finally, let's check to see if the equation works with 0:0'3'/0'0'0'undefined$'0'2'/0'0'0'undefined$$'undefined'undefined' Option II works for all response options, so our final answer is B (option II only). Because we know that the option I do not work, we have eliminated all other options for the answer. But if you want to make sure you're not wrong somewhere, you can check out Option III as well. Let's connect our numbers, starting at No. 1: $-1(-1'-1)-1-0-0-$0-$1(-1) (-1) (-1)-1)-1-1-0-0'0$Two, which means option III Still. Now let's try it with 1: 1: 2 at least 0 (that's more than 0). When we used a positive number (1), the equation became wrong. This means that the choice of C response can be eliminated, and our choice of B has been confirmed as the only correct answer. #3: When dealing with long calculations, use integer rules or connect smaller numbers Some ACT Math integer questions may include long and complex-looking equations and/or mathematical statements. You'll have two main options when it comes to your approach here: Use your knowledge of the rules integer explained above plug in smaller amounts and check them out, to see if the equation is true for the next sample question, we'll show you how you can answer it correctly using both of these options: a, $$b, $$c, $$d, $$e, f odd ones that $a.b.t;t.t;t.t;t.g.; What statement should be true? I. $abcdef $ is strange. $ab'c'd'e'f$ is strange. $a (b'c'd'e'f)$ strange A. I onlyB. II onlyC. III only D. Me and III onlyE. I, II and III Approach 1: Use integer rules Let's first approach this problem by using our integer rules to test option I. We know that each letter is an odd integer and that the product's odd number and other odd number is the odd number. Because the odd number and the odd number will always be odd, we know that the option I have to be true; So we can eliminate the B and C answers. We also know that you can even number 4 and even a number. If we divide the $a 'b'c'd'e'f$ into pairs of numbers, we get the following: $(a'b) (c'd)' (e'd)$ We know that each pair of numbers will have a different amount, so we are left with even a number and even a number that will give us a yo end result. This means that option II is incorrect, and so we can rule out the choice of answer E. Finally, let's look at option III. Since our brackets hold five (odd number) of odd numbers and an even number - an odd number and an odd number, we can say that the number in brackets will be odd. We also know that the odd number (a) multiplied by the odd number (the amount of b, c, d, e, f) is equal to the odd number. So Option III is correct as well. This means that our final answer is D (me and III only). Approach 2: Connect

numbers Another way to solve this problem would be to check these rules with small numbers and extrapolate to find a broader answer. In other words, you'll use small numbers instead of variables. For Option I, if you didn't know what the odd number and the odd number and the odd number, you can $a $1 and $b $5 and 3, respectively. $5'3'15$, which means that the odd number - the odd number - is an odd number, no matter how many times you multiply it; his; option I'm right. For Option II, check it again with smaller numbers. $7.5-$12, and $7'5'3'15$. So you know that adding the odd number an even number of times gets you an even answer, and adding the odd number of times gets you the odd answer. There are six odd numbers, so the final answer should be even. Option II is incorrect. By taking what you've learned by testing Option II, you know that adding the odd number even number of times gets a strange answer. And by taking what you learned from testing option I, you know that the odd number - the odd number - is the odd number. This means that your final answer should be strange, so Option III is correct. The correct answer, then, must be D (I and III only). Wu! There are many ways to solve more complex problems and depending on how the way works for you is ideal. Key takeaways: What you need to know about integers at ACT Math In order to address both the act's core and advanced issues quite ahead, you need to first understand what an integer is. Only then can you create your knowledge integer to more advanced concepts. Just knowing that a range of (and that 0 and negative numbers are also whole numbers) will allow you to solve some of the most basic ACT Math issues that deal with connecting the whole into the equation and the relationship between the given whole. To learn more about the more advanced integer concepts tested in the ACT, including absolute values and exhibitors, check out our advanced ACT integers guide. Now that you've learned what integers are, you can check out our cutting-edge guide to ACT integers, in which we go through absolute values, basic numbers, and exhibitors, among other concepts. Make sure you also have a solid understanding of all the ACT math concepts on the test, as well as all the ACT math formulas you need to know. Always not time on ACT Math? Check out our expert guide on how to buy yourself these extra precious seconds and minutes so you can complete these act Math problems before the time. Don't know where to start with ACT training? Start by figuring out your ACT target. Already have pretty good grades and looking to get the perfect 36? Take a look at our article on how to get the perfect ACT score written by a real full scorer! Want to improve your ACT score by 4 points? Check out our best-in-class online ACT training program. We guarantee your money back if you don't improve your ACT score by 4 points or more. Our program is completely online and it customizes what you are learning to your strengths and weaknesses. If you liked this math lesson, you'll love our program. Along with more detailed lessons, you'll get thousands of practical challenges organized by individual So you'll learn most effectively. We will also give you a step-by-step program to follow, so you will never be confused about what to learn next. Check out our 5-day free trial: Are there friends who also need help preparing for the test? Test? This article! Have a question about this article or other topics? Ask below and we'll answer! Answer!