

## Reason and Write

Study the example. Underline two parts that you think make it a particularly good answer and a helpful example.

**Example**

Ling says that the solution to  $8s = 2$  is that  $s$  must be greater than 1. Does Ling's solution make sense? Explain how you know whether or not Ling's solution makes sense without solving the equation. Then draw a model of the problem and solve the equation.

**Show your work.** Use numbers, words, and models to explain your answer.

**Ling's solution does not make sense. The expression  $8s$  means to multiply 8 by  $s$ . If I multiply 8 by 1, I get 8, which is greater than 2. So the solution must be less than 1.**

**I can draw a bar model to help me solve the problem.**



**The bar model shows that 8 times  $s$  gives me 2, so I can ask myself what number I could multiply by 8 to get 2. I know that the number is less than 1, so it must be a fraction.**

**The model shows that 8 bars represent 2, so 4 bars must represent 1. Therefore, each bar represents  $\frac{1}{4}$ .**

**The solution to  $8s = 2$  is  $s = \frac{1}{4}$ .**

Where does the example ...

- use numbers to explain?
- use words to explain?
- use models to explain?
- give details?





**Solve the problem. Use what you learned from the model.**

Jake says that the solution to  $8.5 - a = 5$  is that  $a$  equals 13.5 because addition and subtraction are inverse operations and  $8.5 + 5 = 13.5$ . Does Jake's solution make sense? Explain how you know whether or not Jake's solution makes sense without solving the equation. Then draw a model of the problem and solve the equation.

**Show your work.** Use numbers, words, and models to explain your answer.

Did you ...

- use numbers to explain?
- use words to explain?
- use models to explain?
- give details?



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The bar model shows that 8 times 2 gives me 16, so I can ask myself what number I could multiply by 8 to get 2. I know that the number is less than 1, so it must be a fraction.

The model shows that 8 bars represent 2, so 4 bars must represent 1. Therefore, each bar represents  $\frac{1}{2}$ .

The solution to  $8x = 2$  is  $x = \frac{1}{4}$ .

Where does the example ...

- use numbers to explain?
- use words to explain?
- use models to explain?
- give details?

