

FASTDRAW for Algebra

To help me solve algebra word problems.

Find what you are solving for.

- Look for a question mark
- Underline the information that tells you what you are solving for.
- Name the variable (what you are solving for) with a letter and write it after the question mark.

Ask yourself what information is given?

- Read each sentence
- Find the number phrases and circle them.

Set up the equation.

- Write the equation with the variable and the numbers in the correct order.

Take the equation and solve it.

- Solve the equation and write the answer.
 - If you can't solve the equation, then use "DRAW" to solve it.
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Discover the variable and the operations.

- Scan the equation and look for operation signs (+,-,×,÷)
- Circle the operation signs.

Read the equation and combine like terms.

- Read the whole equation out loud.
- Look for "like terms."
 - For example, numbers that have the same letter next to them: $6a + 2a + 5 + 2 = 15$. Both "6a" and "2a" are like terms. Also, numbers without letters next to them are like terms ("5" & "2").
- Combine like terms.

- For example, “6a” and “2a” can be combined ($6a + 2a = “8a”$). Also, “5” and “2” can be combined ($5 + 2 = “7”$).

$$6a + 2a + 5 + 2 = 15 \text{ now becomes } \mathbf{8a + 7 = 15}$$

Answer the equation, or draw and check.

- If you know the answer or if you can solve the equation without drawing, then write the answer.

- For example: $8a + 7 = 15$
 $8a = 15 - 7$
 $8a = 8$
 $a = 1$

- If you don't know the answer or how to solve the equation without drawing, then draw the answer.

- For example: $8a + 7 = 15$
 $8a = 15 - 7$
 $8a = 8$
 $a = 1$



Write the answer for the variable and check the equation.

- Write the number that represents the answer
 - For example: $a = 1$
- Substituting your answer for the letter in the original equation.
 - For example:

$$6a + 2a + 5 + 2 = 15$$

$$6(\mathbf{1}) + 2(\mathbf{1}) + 5 + 2 = 15$$

- Work the problem and see if the left side equals the right side.

- For example:

$$6(1) + 2(1) + 5 + 2 = 15$$

$$(6 \times 1) + (2 \times 1) + 5 + 2 = 15$$

$$6 + 2 + 5 + 2 = 15$$

$$15 = 15$$